

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

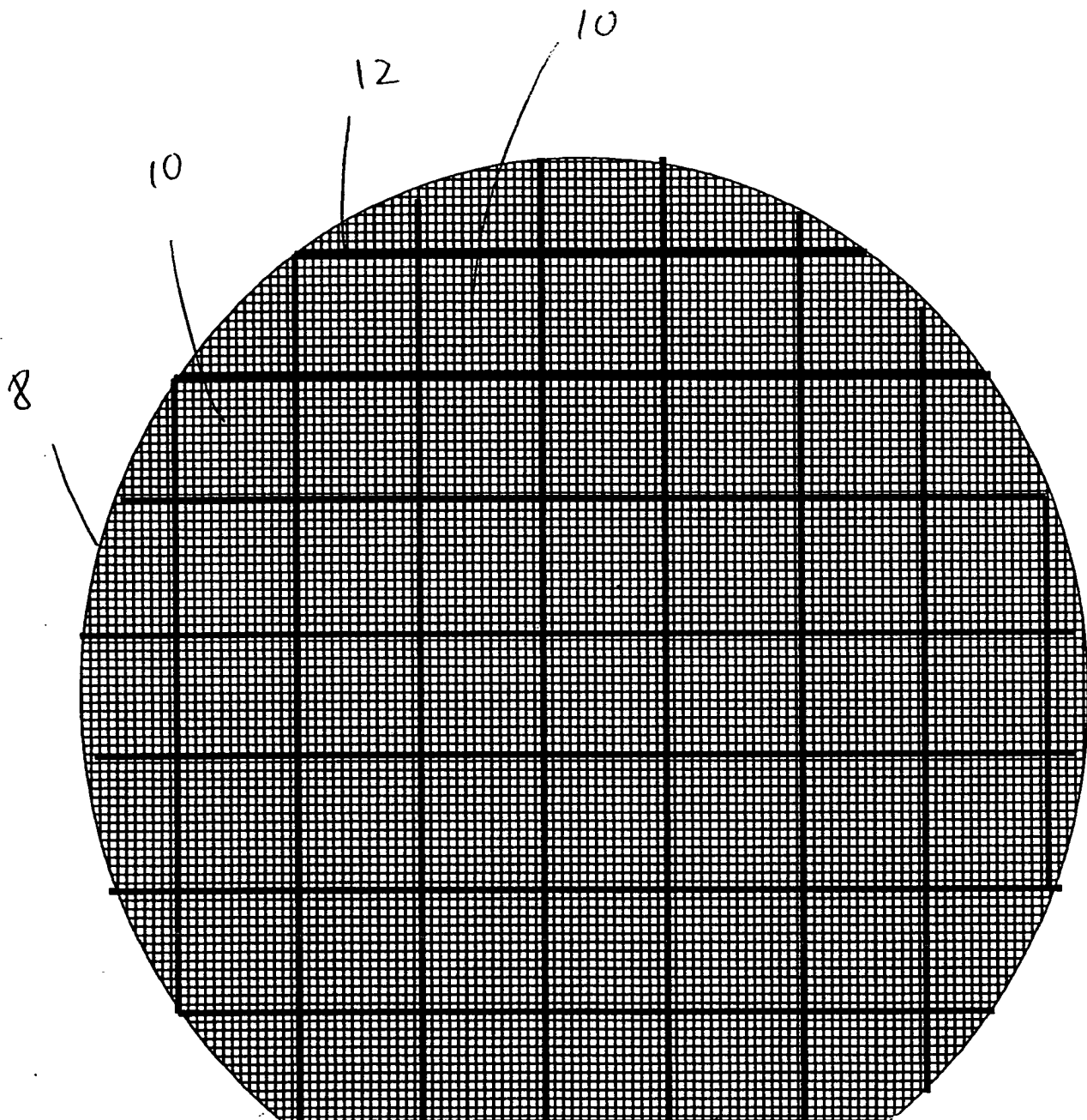


Fig 1

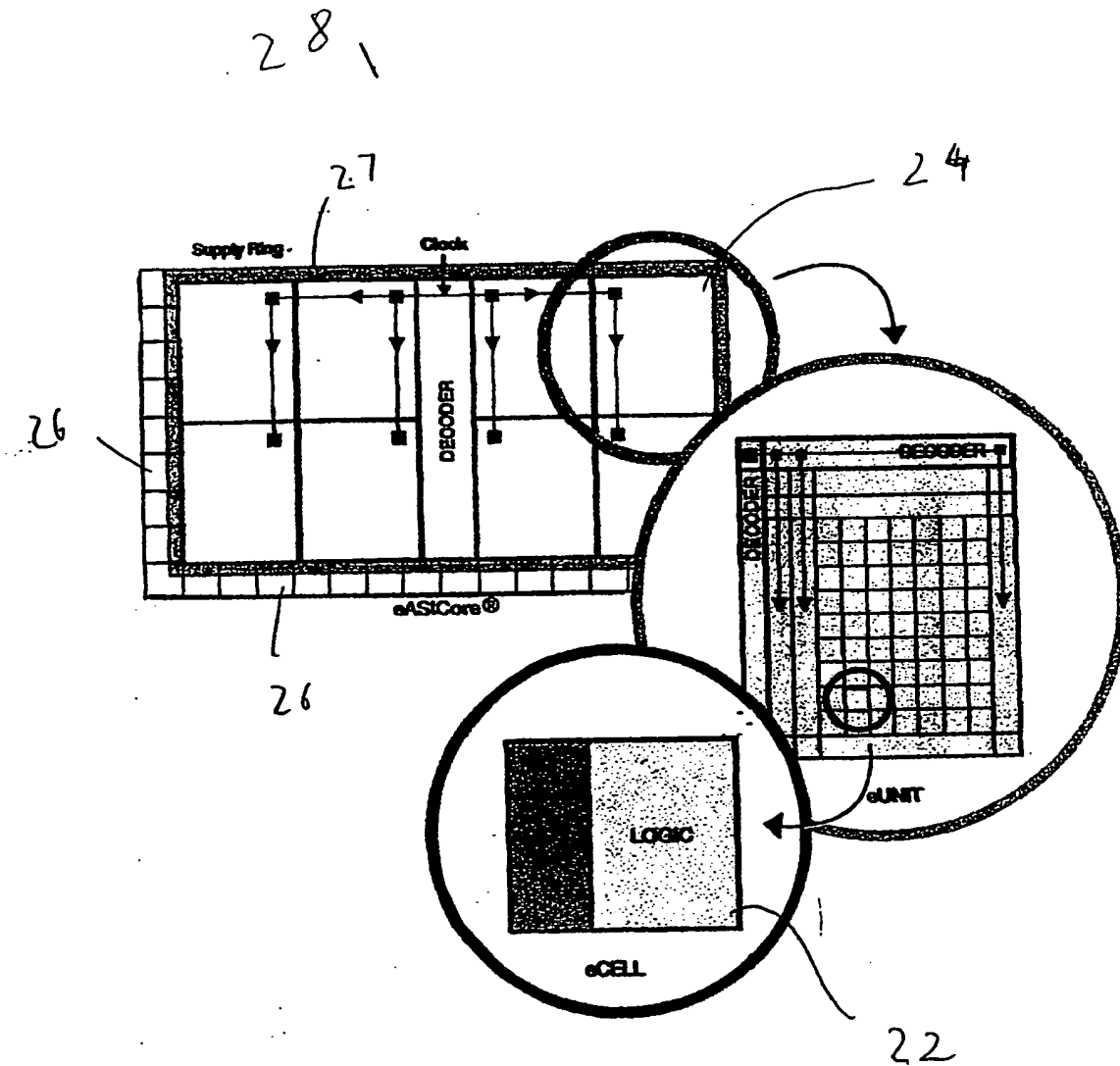


Fig 2

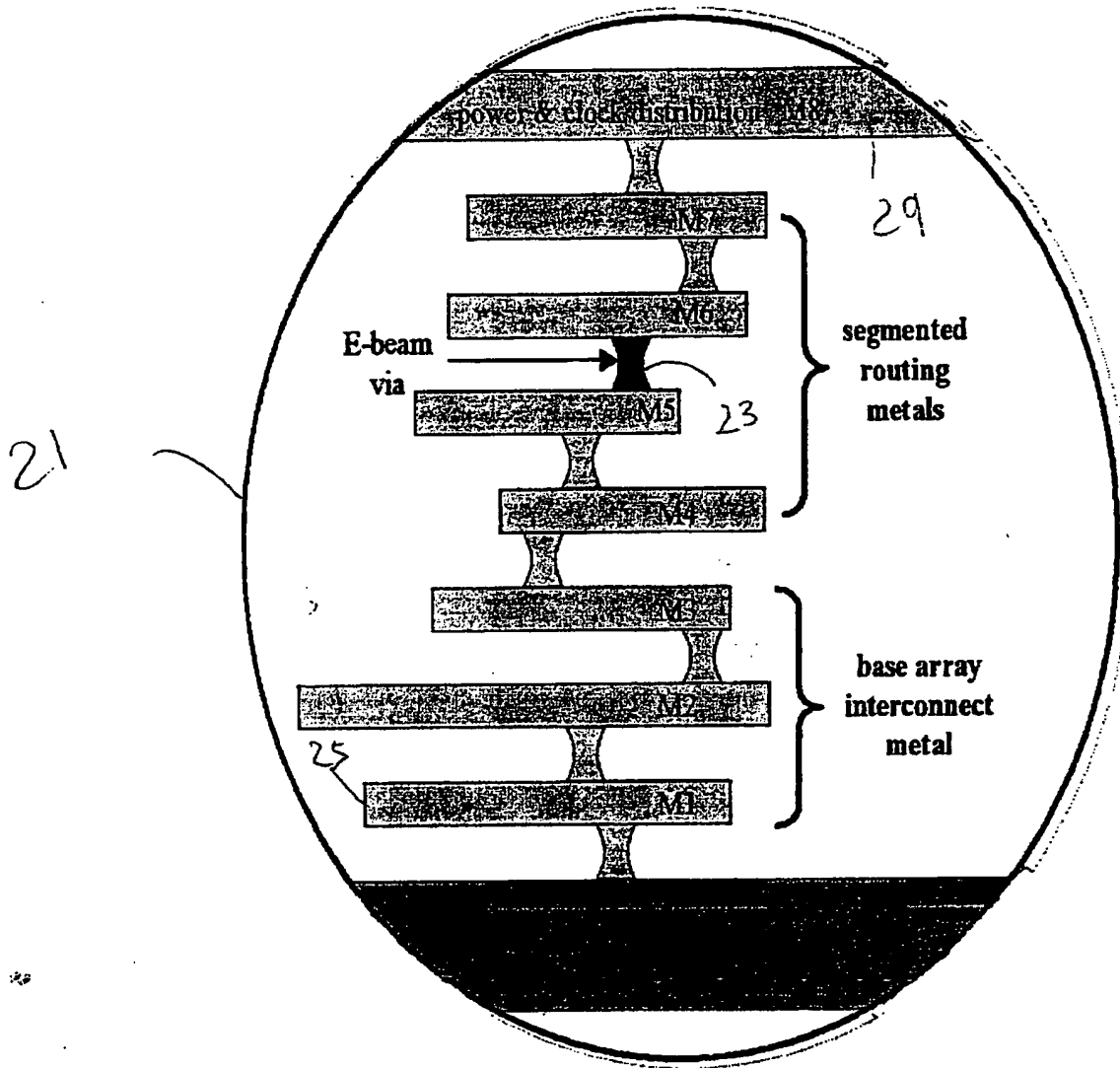


Fig 2A

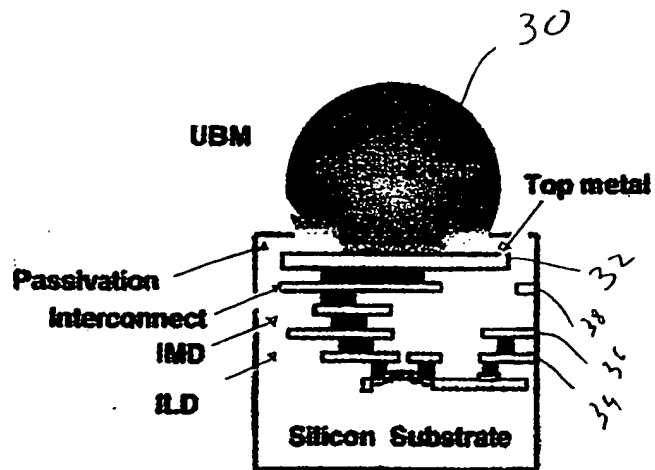


Fig 3 A

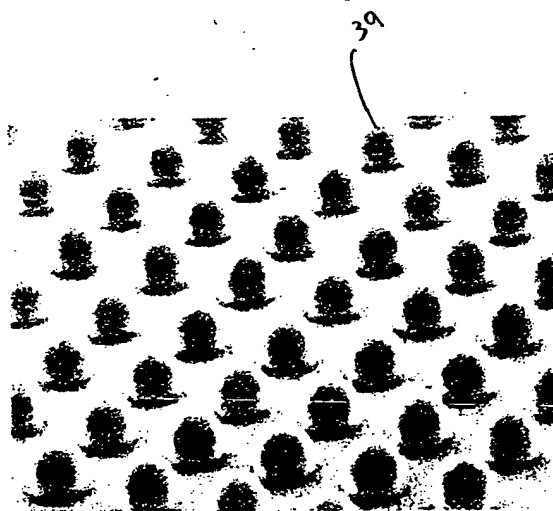


Fig 3 B

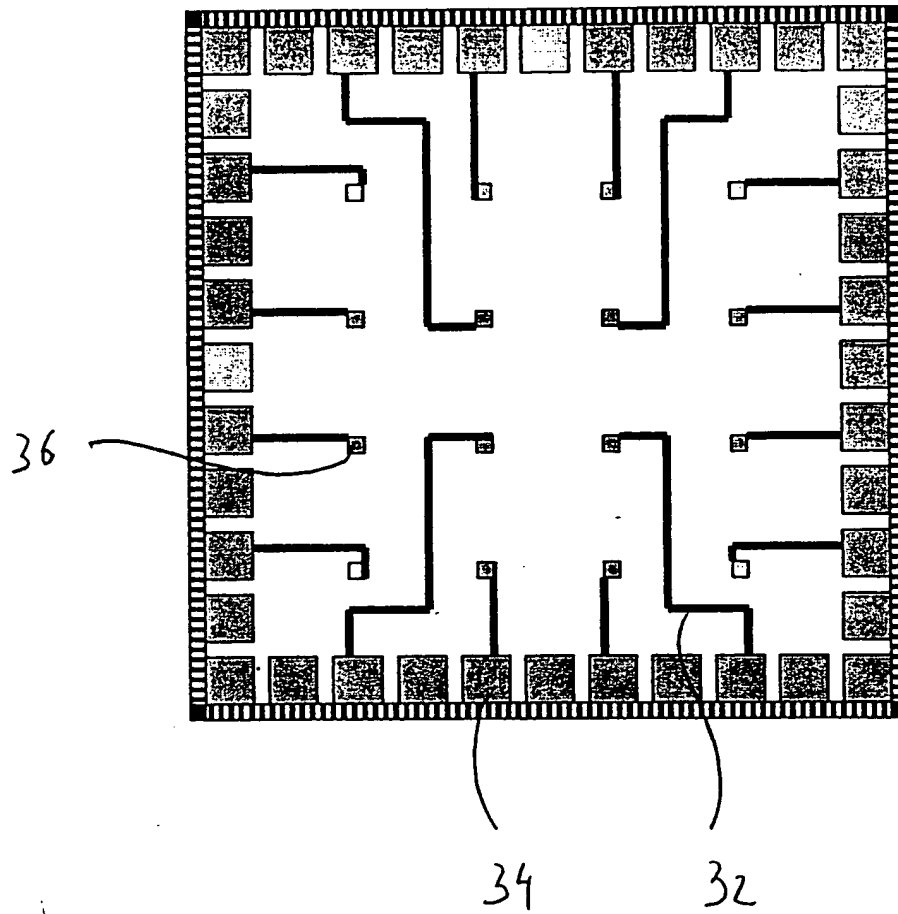


Fig 3 C

B	Bump Diameter	$150\mu\text{m} \pm 10\mu\text{m}$ (in Wafer)	$70\mu\text{m} \pm 10\mu\text{m}$ (in Wafer)
C	Cu Bump Height	$20\mu\text{m} \pm 3\mu\text{m}$ (in Wafer)	$10\mu\text{m} \pm 3\mu\text{m}$ (in Wafer)
D	Bump Root Diameter	$90\mu\text{m}$	$60\mu\text{m}$
E	Passivation Hole Size	$70\mu\text{m}$	$40\mu\text{m}$
F	Bump Pitch	$200\mu\text{m}$	$120\mu\text{m}$

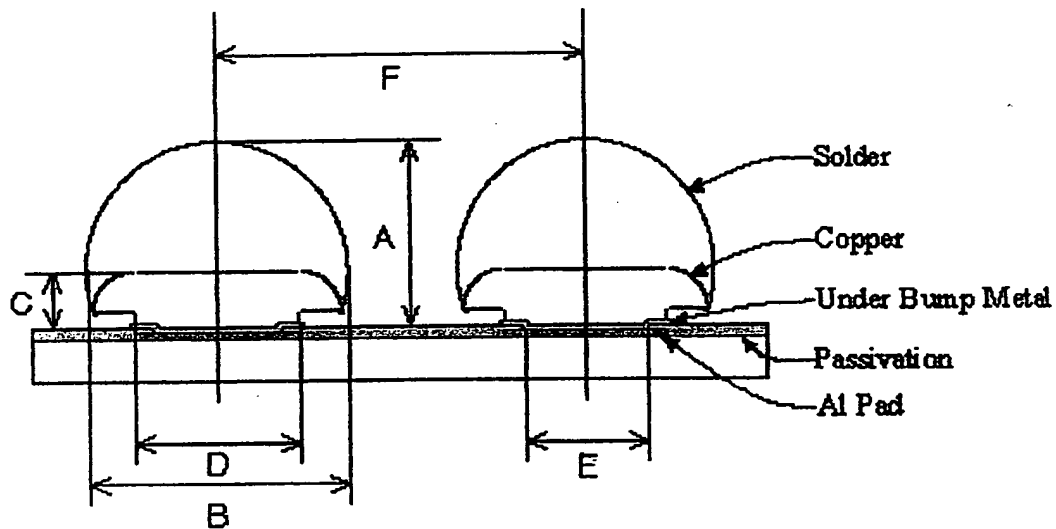


Fig 4

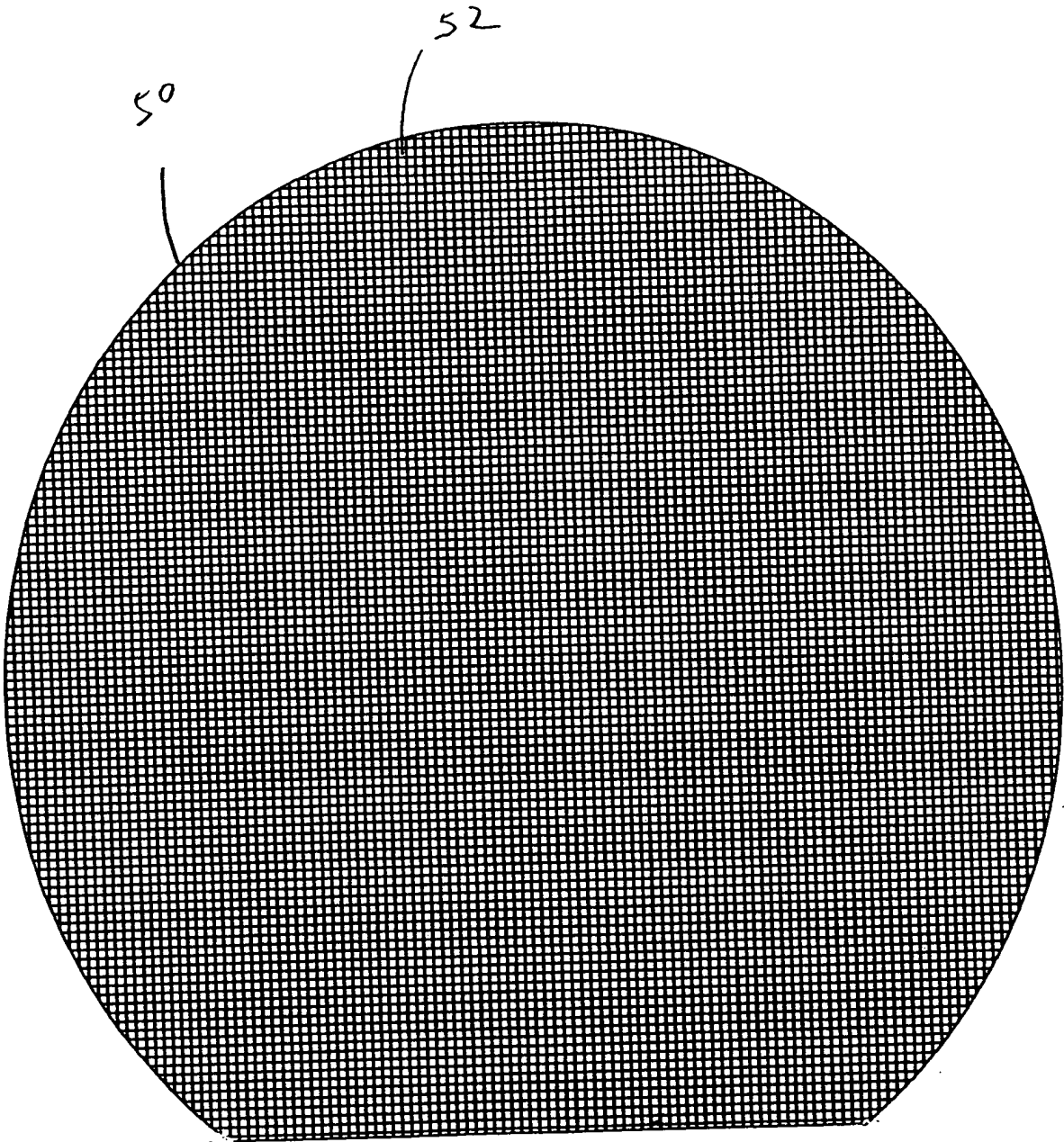


fig 5

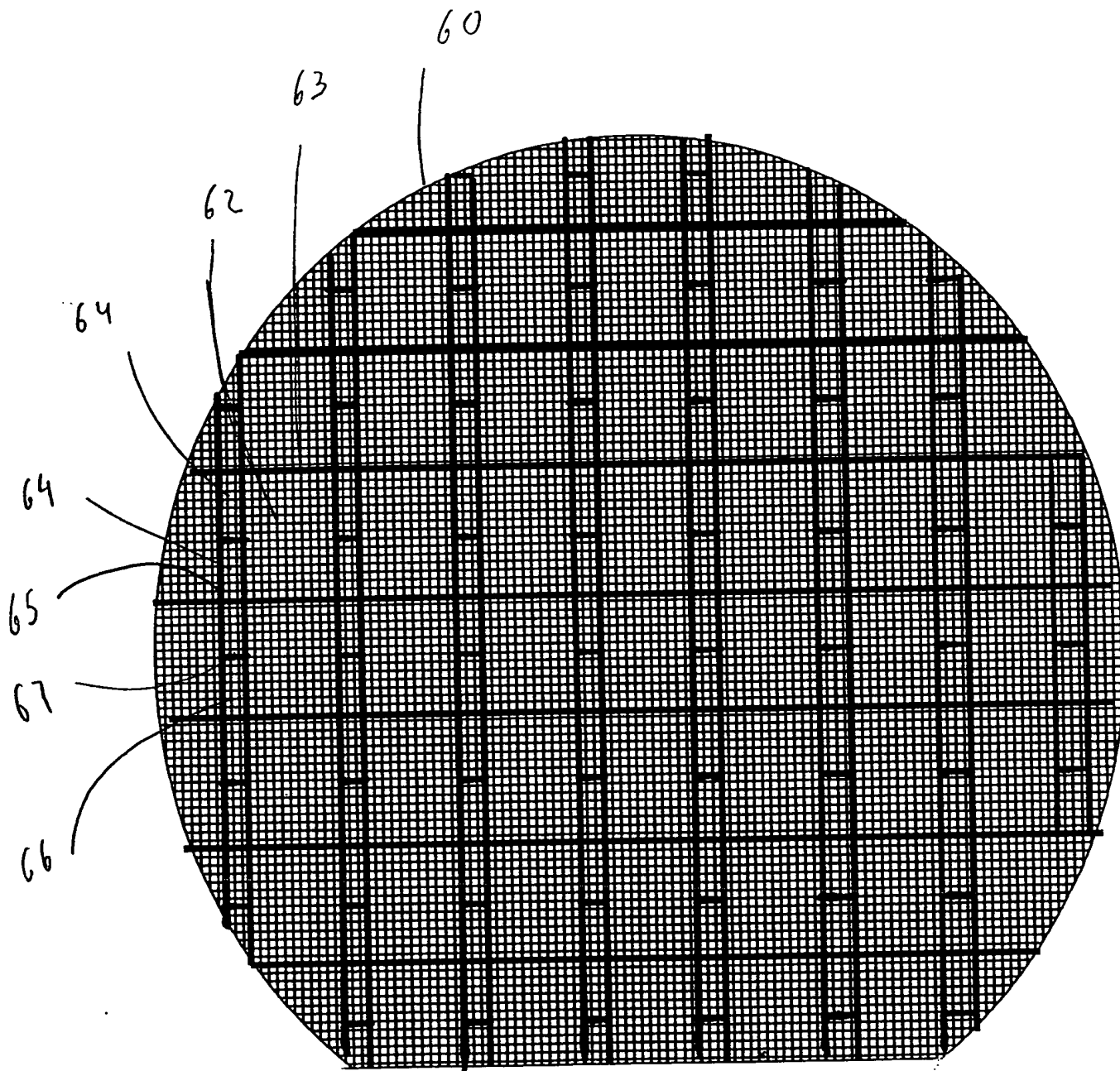


Fig 6

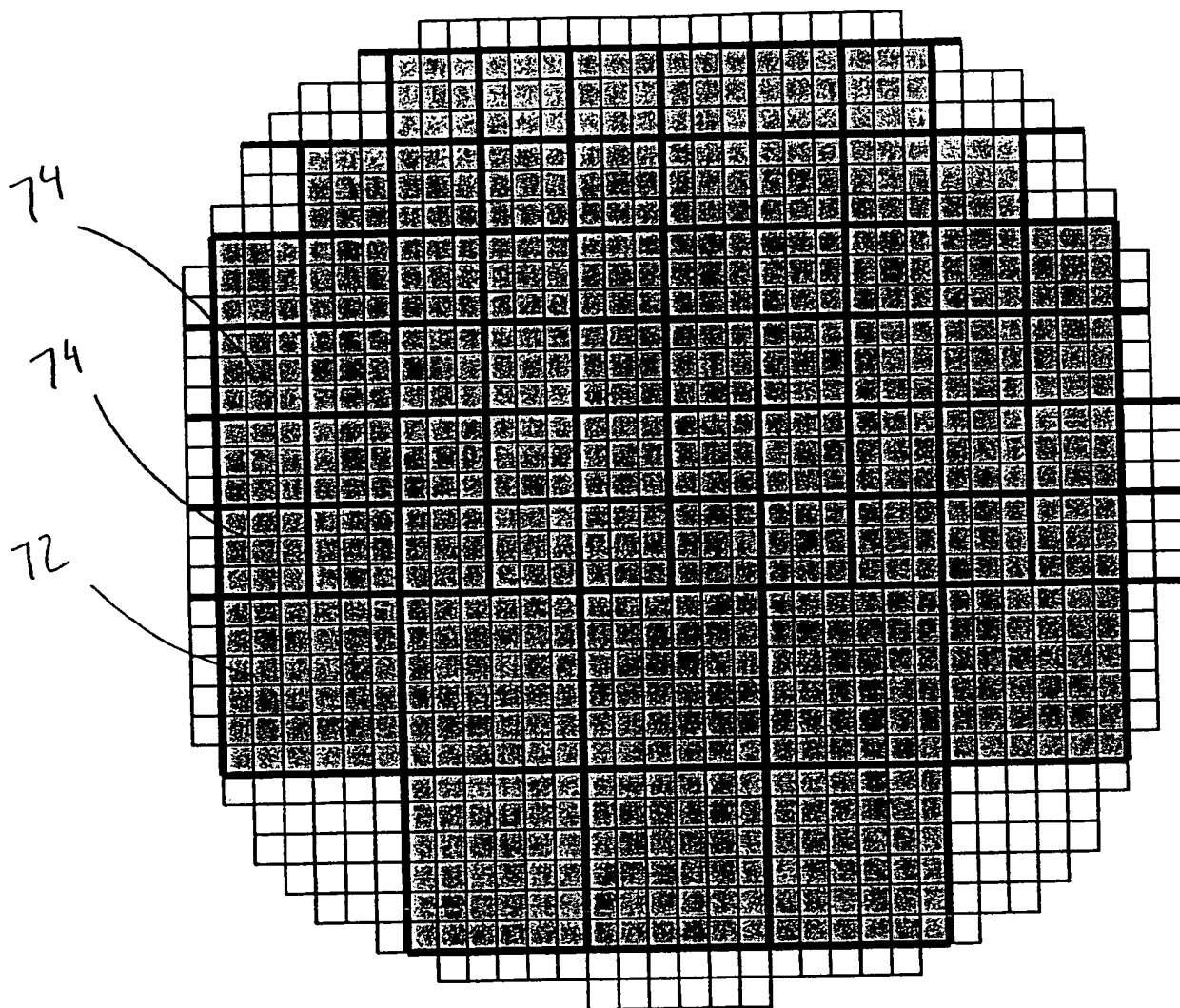


Fig 7

80

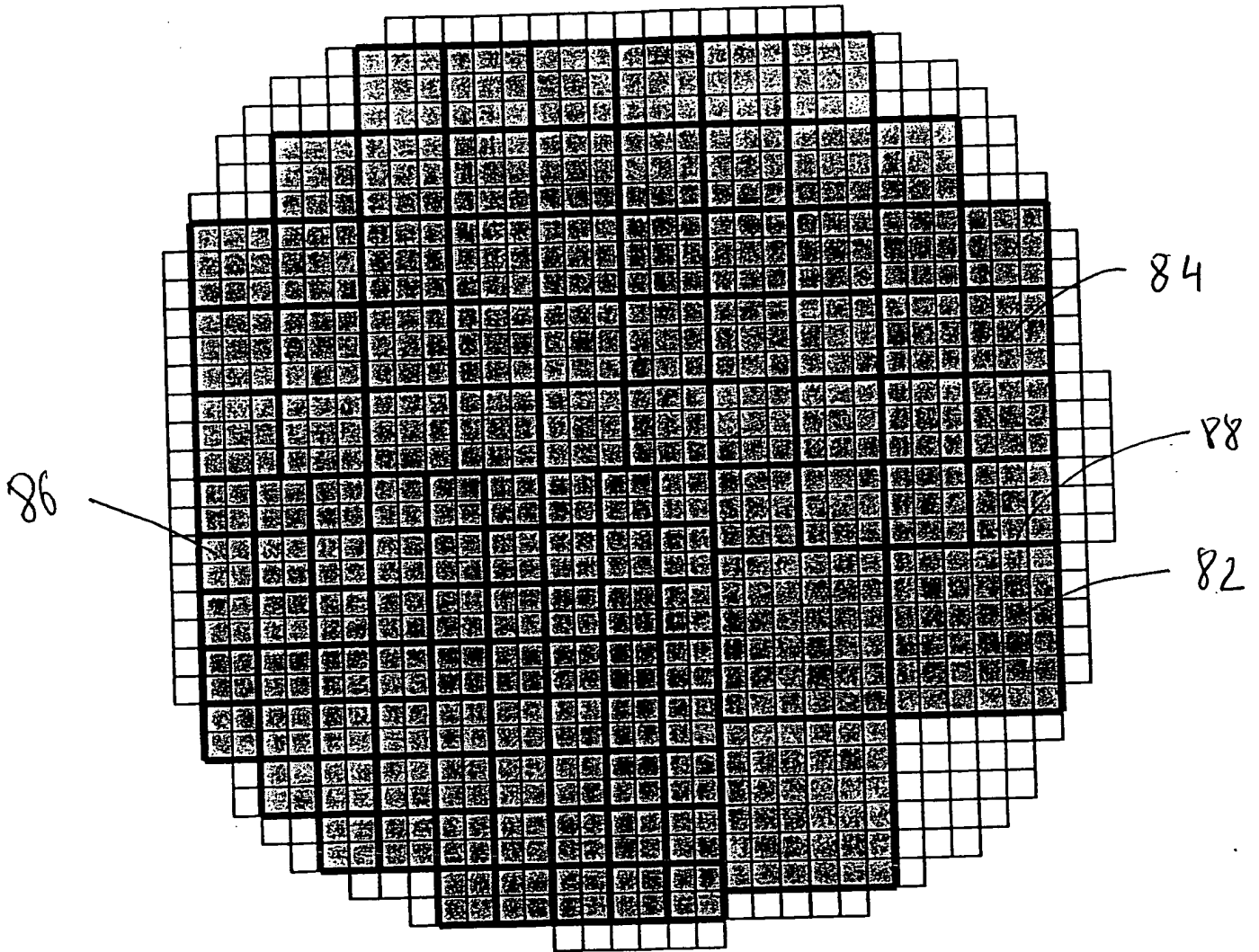


Fig 8

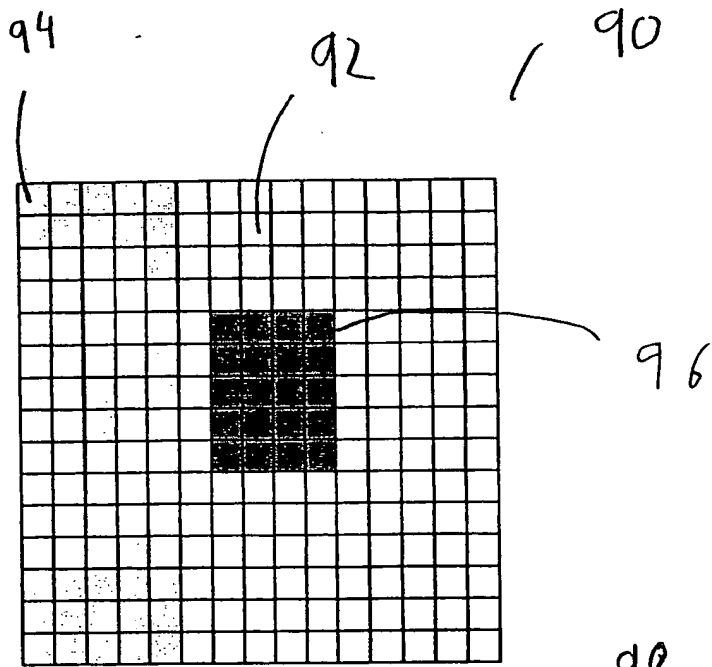


Fig 9 A

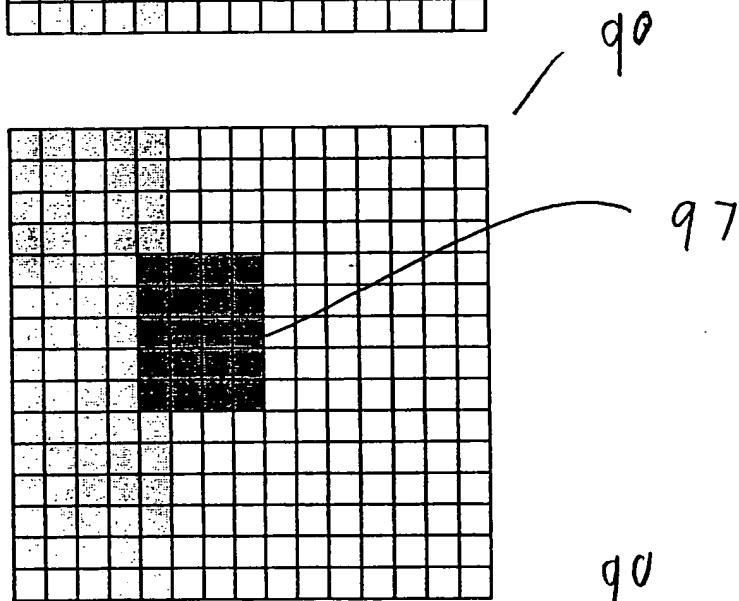


Fig 9 B

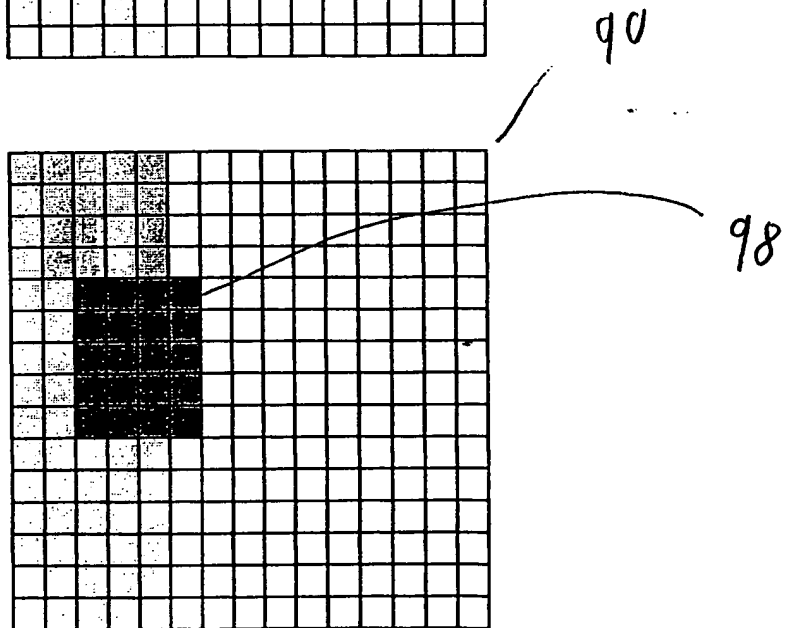


Fig 9 C

Fig 10 A

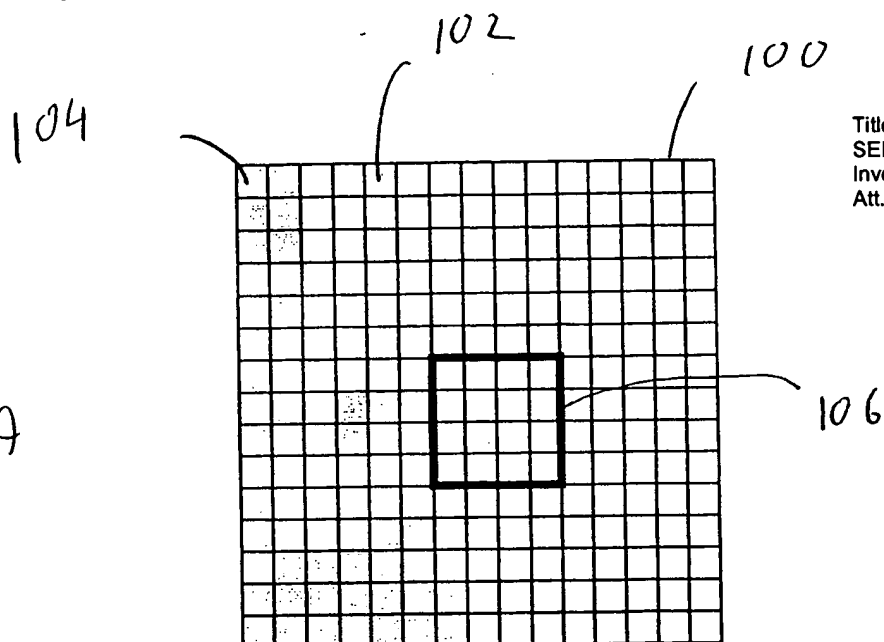
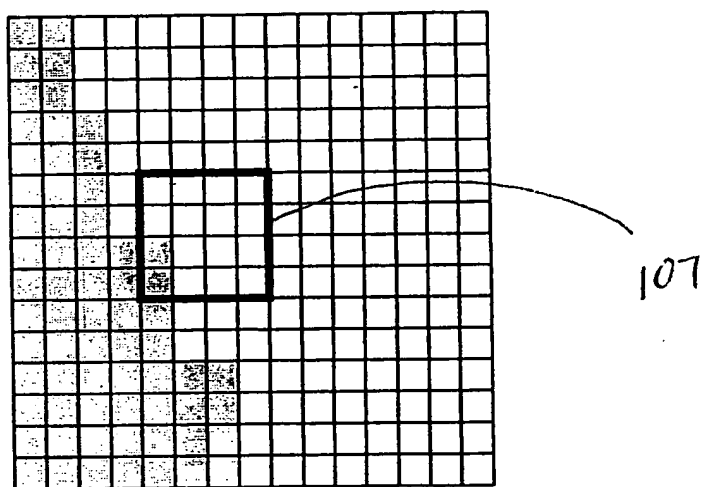


Fig 10 B



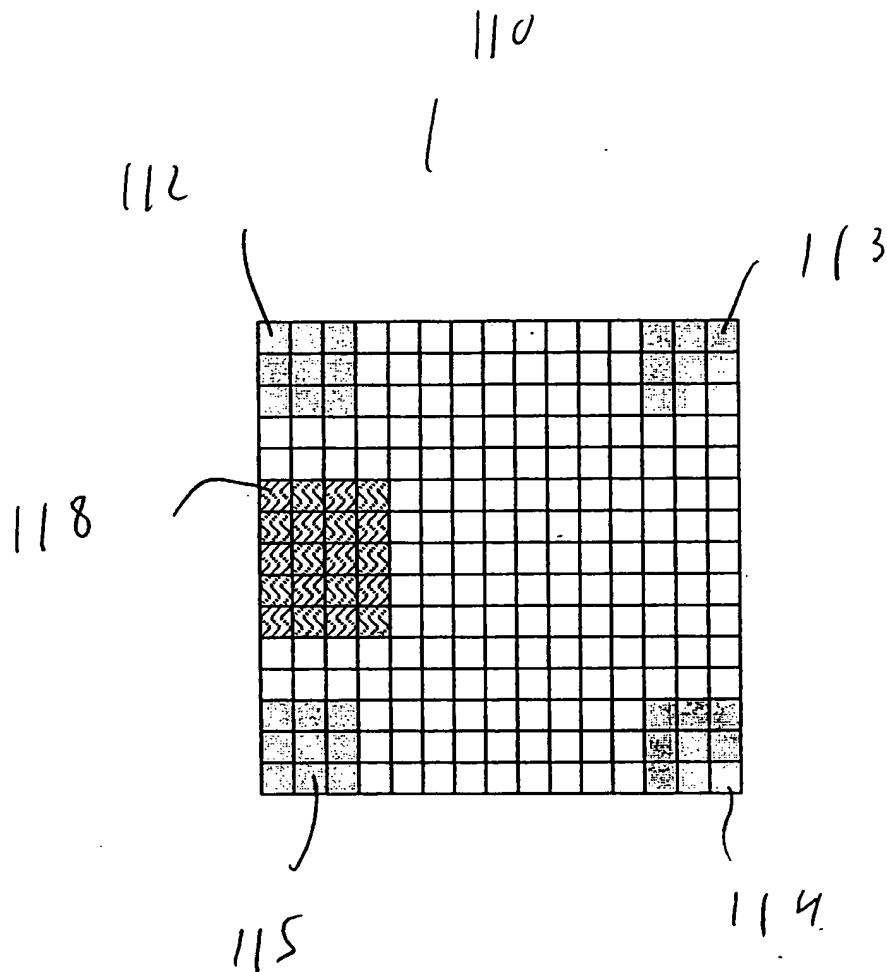


Fig 11

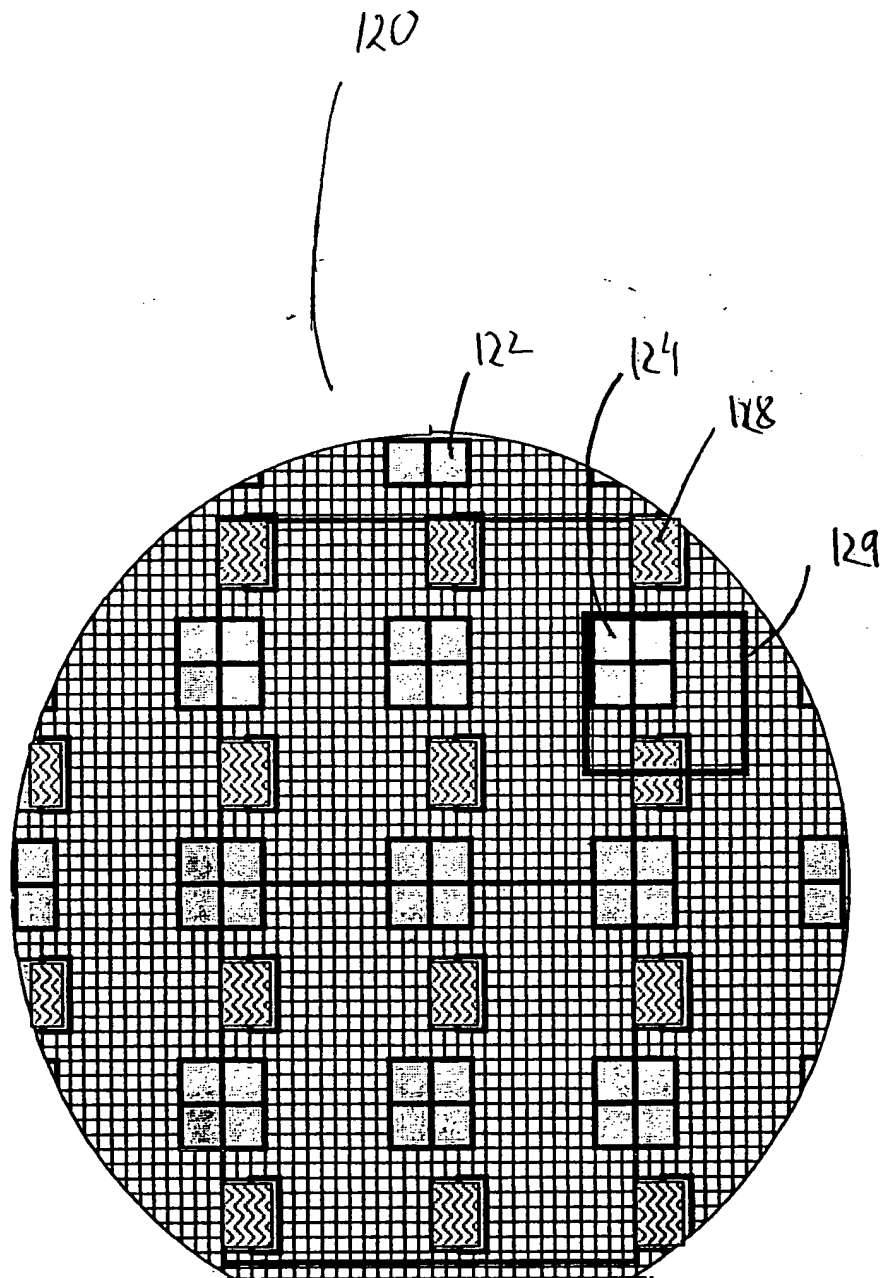


Fig 12

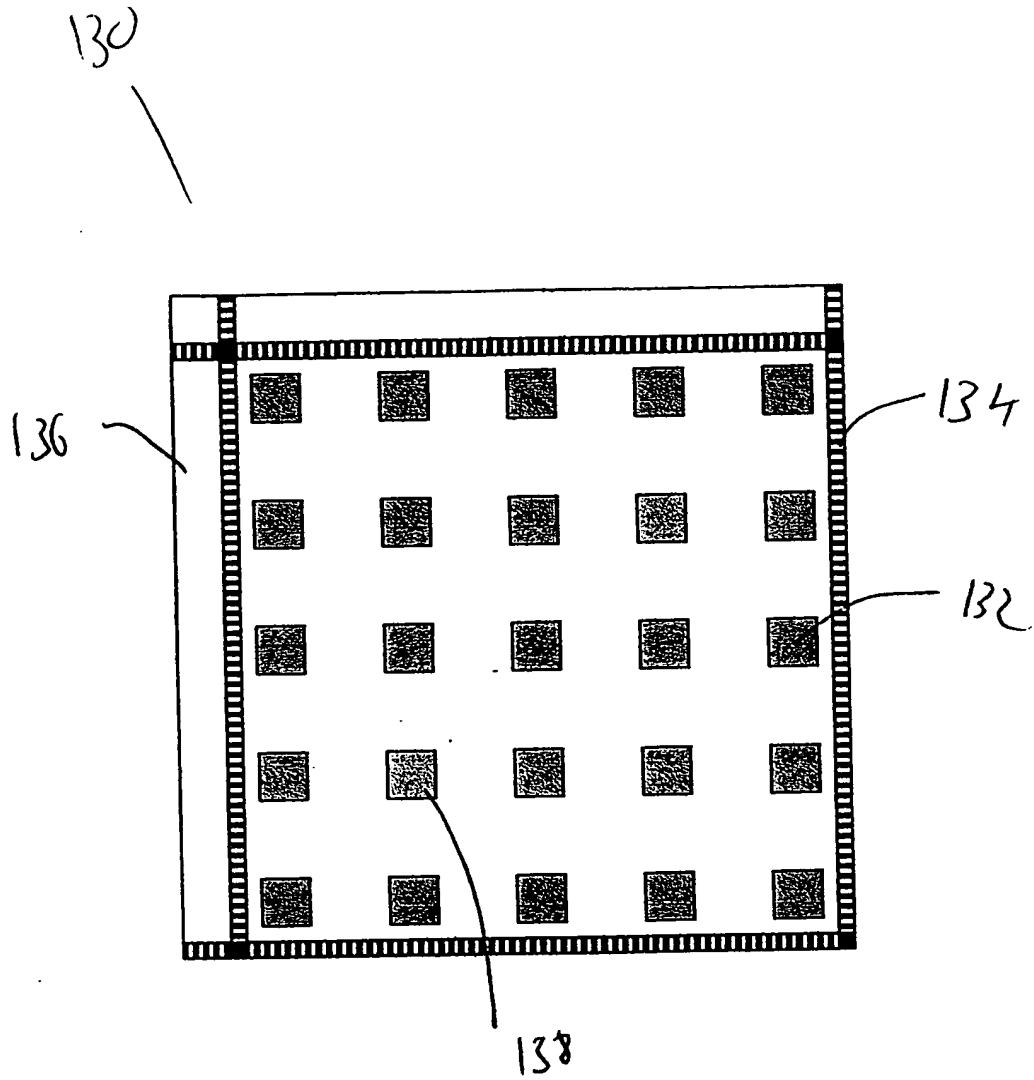


Fig 13

140

1

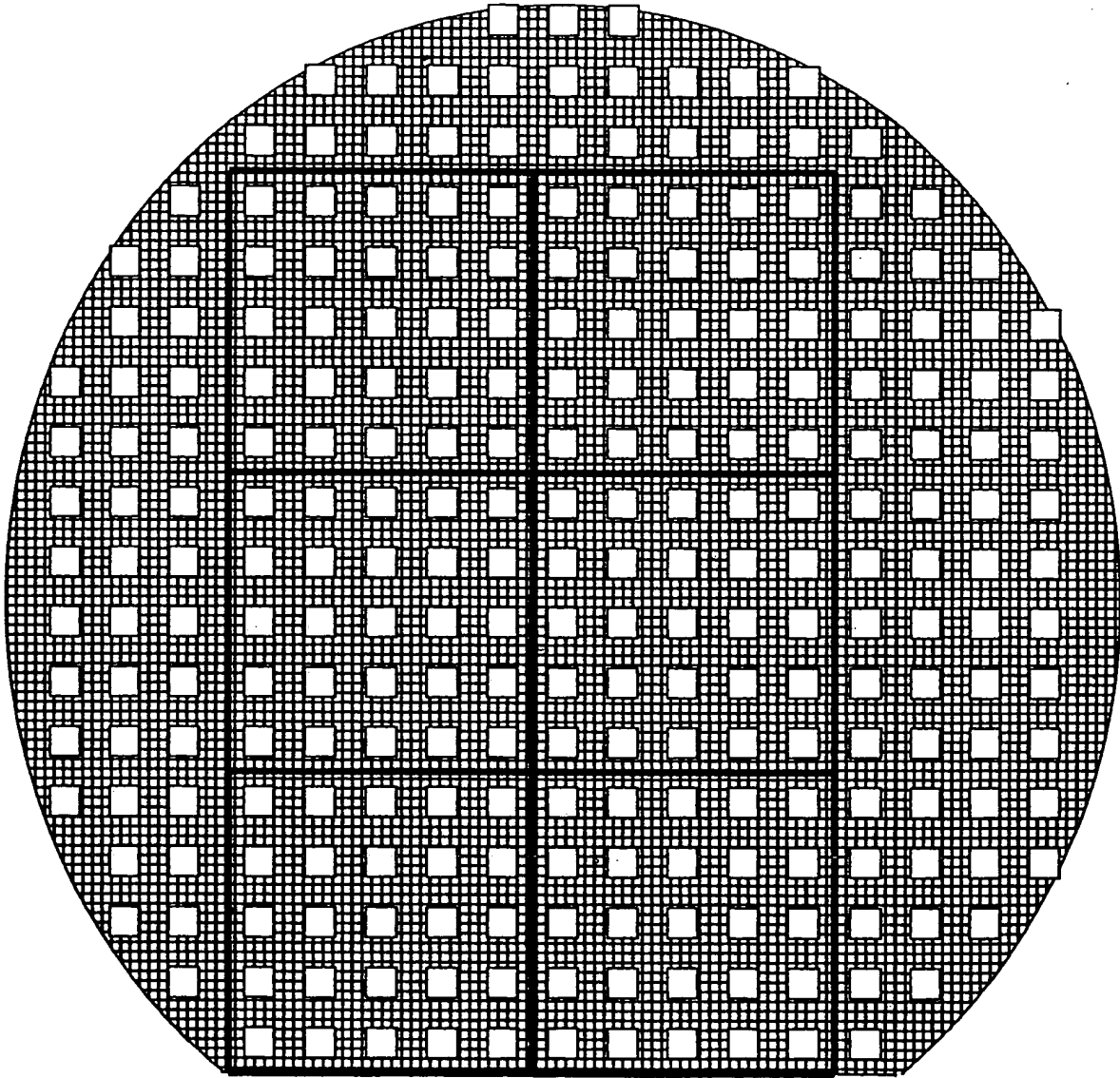
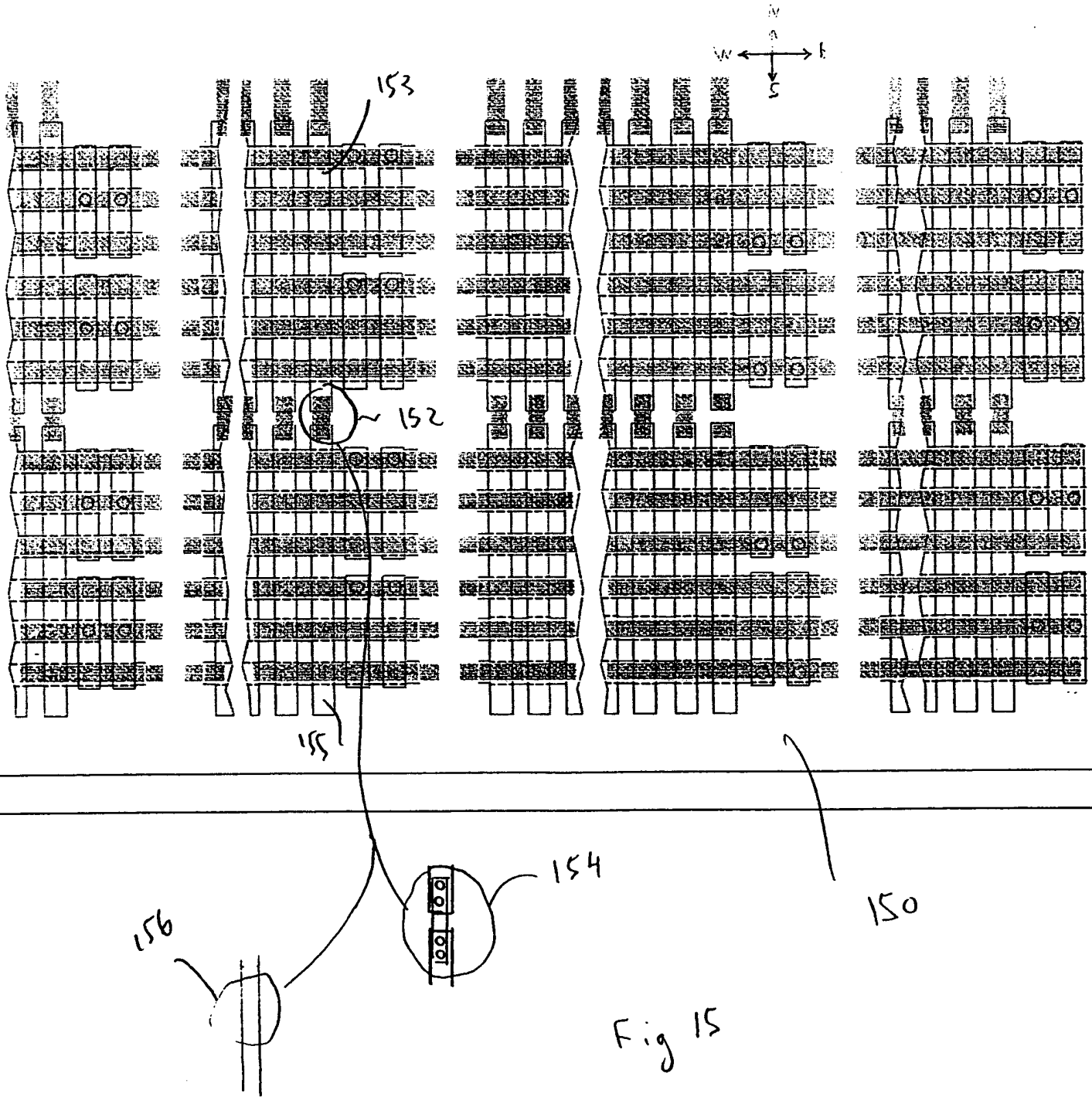


Fig 14



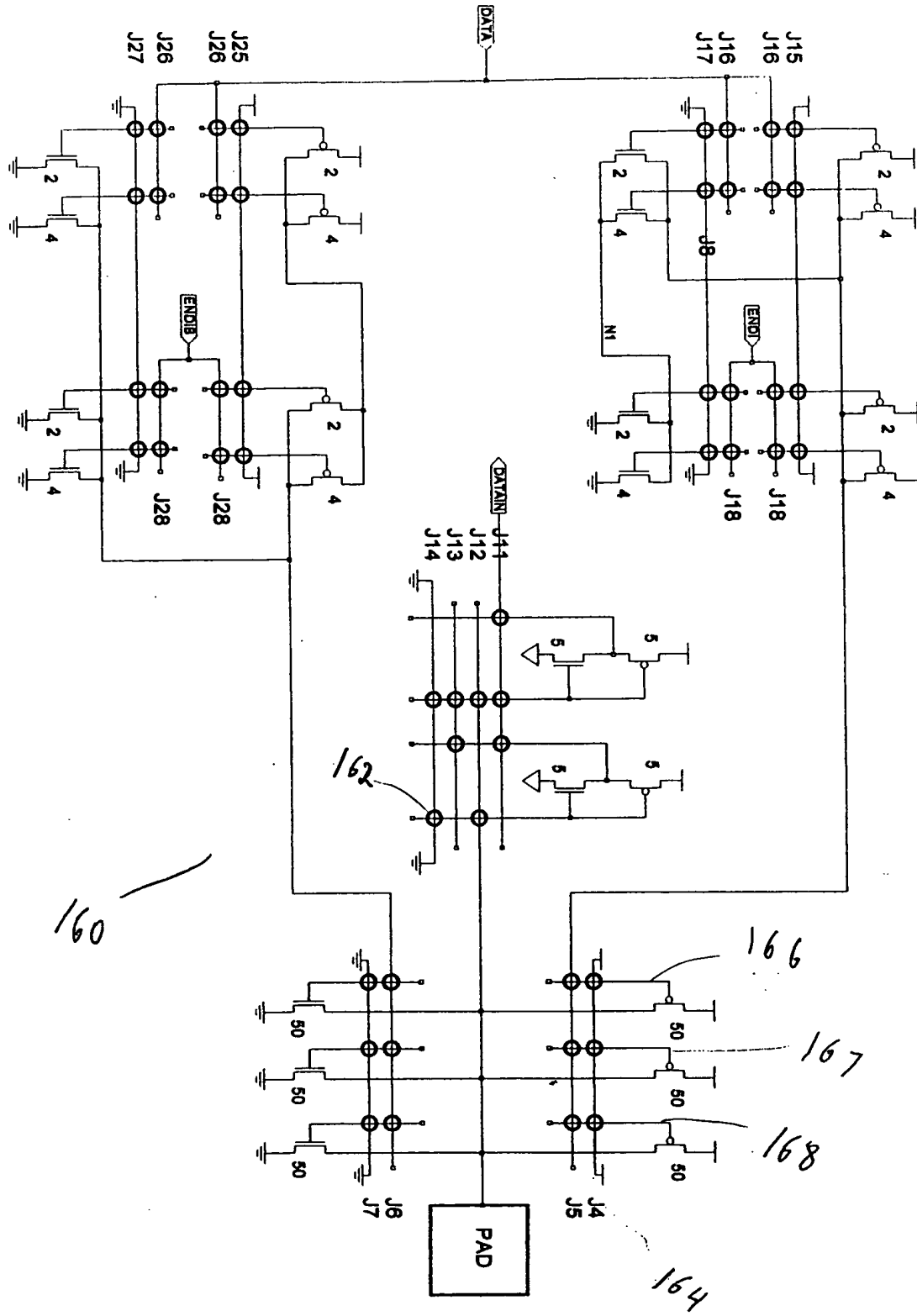
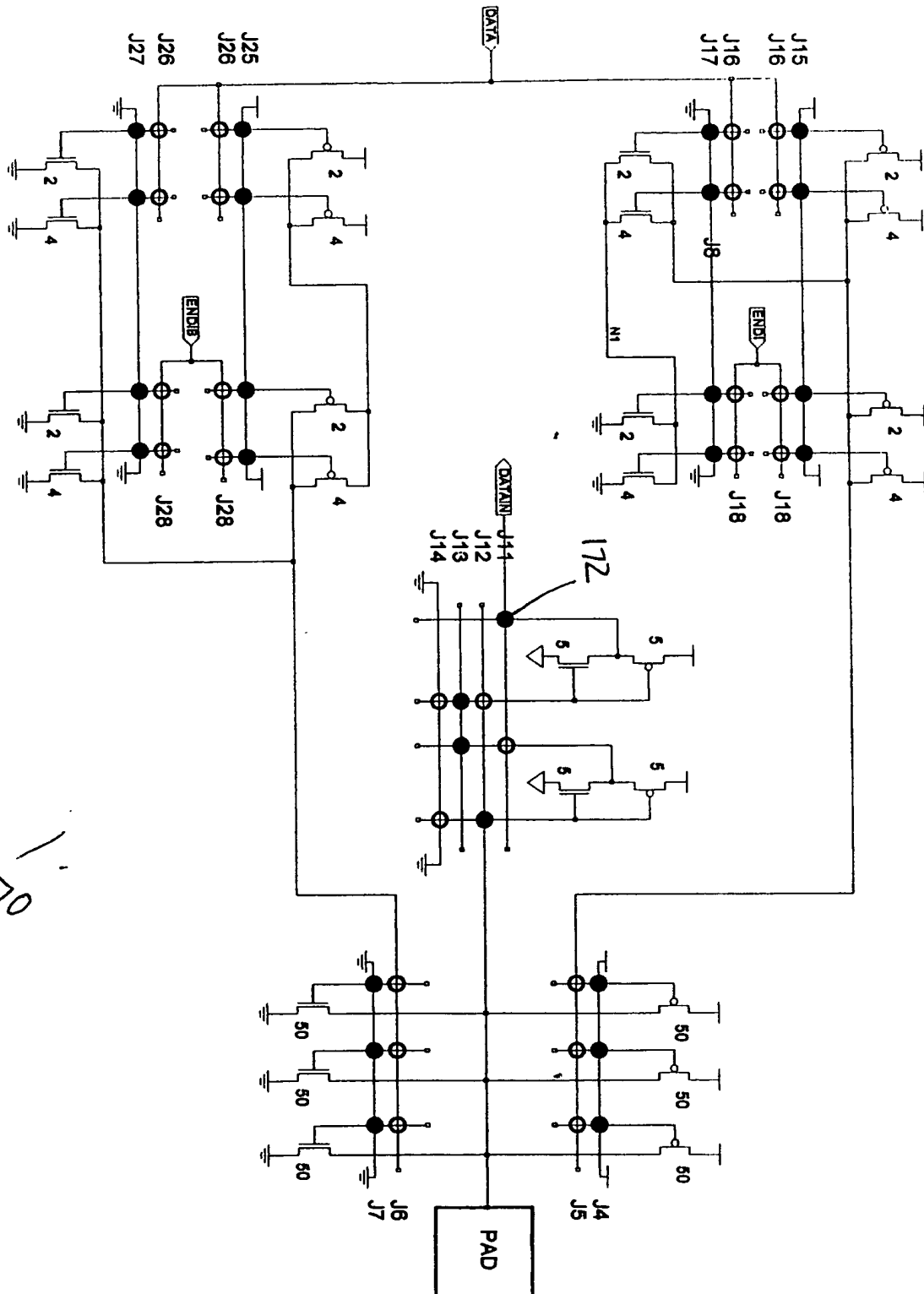


Fig 16



170

Fig 17

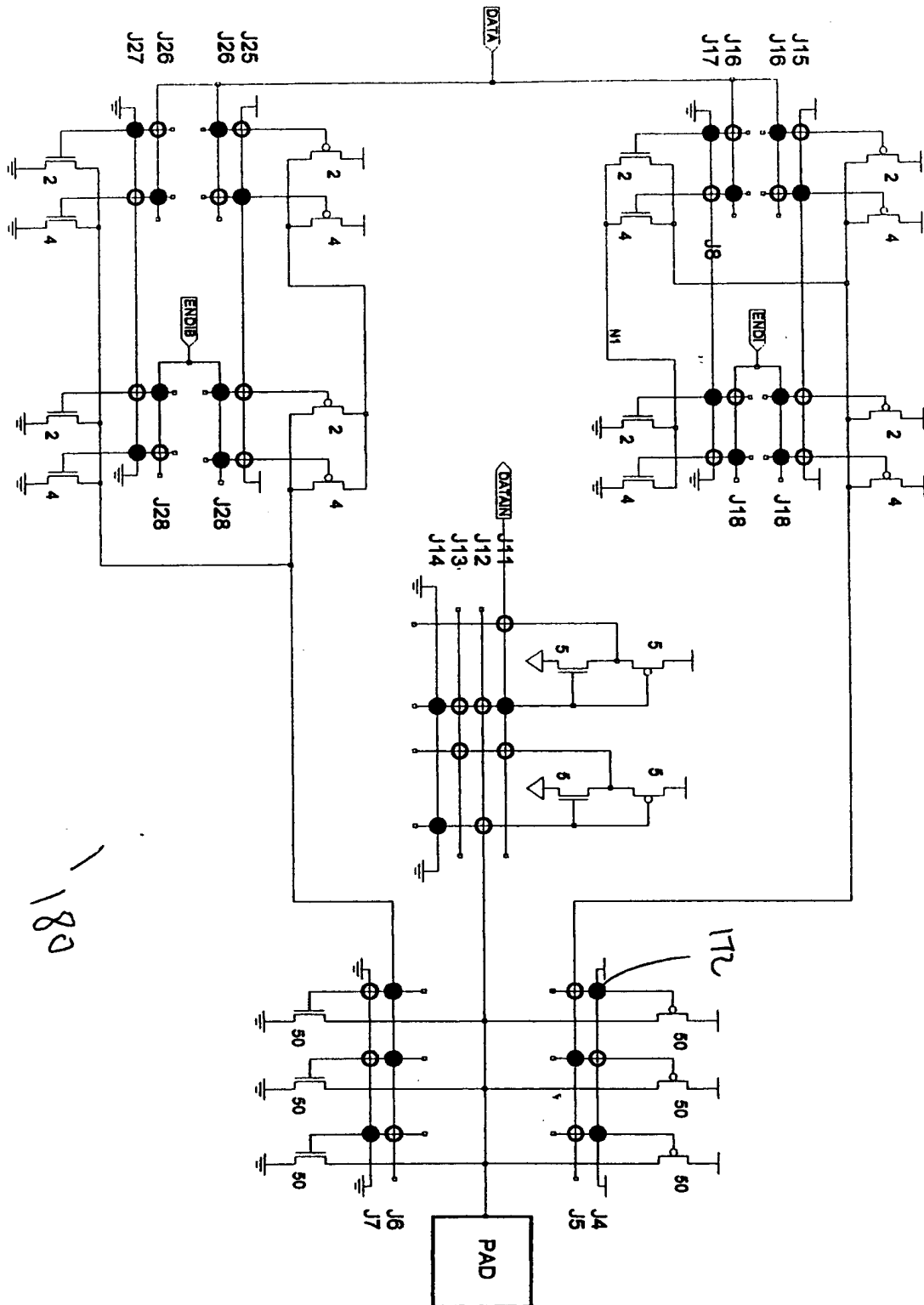


Fig 18

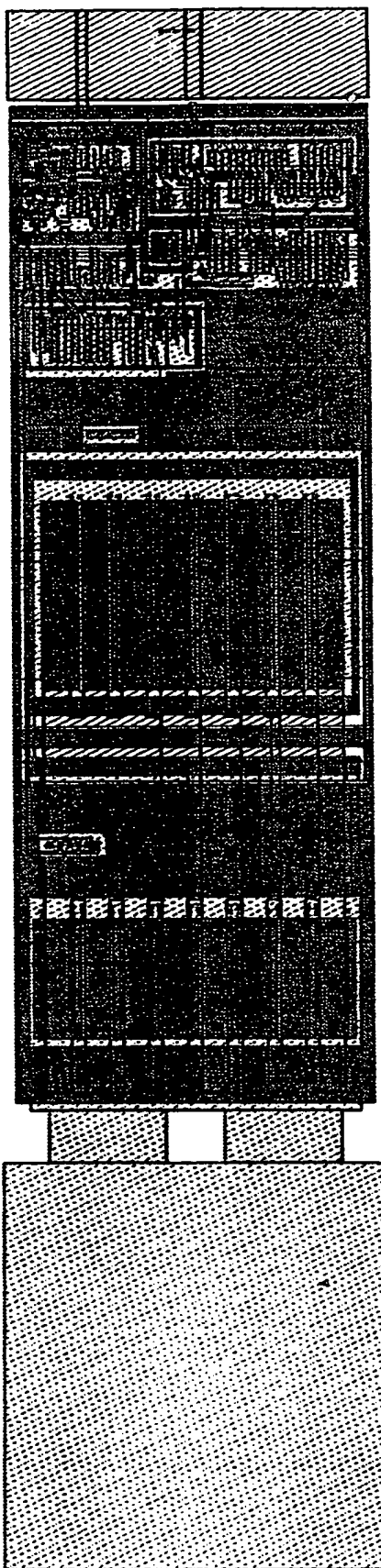


Fig 19

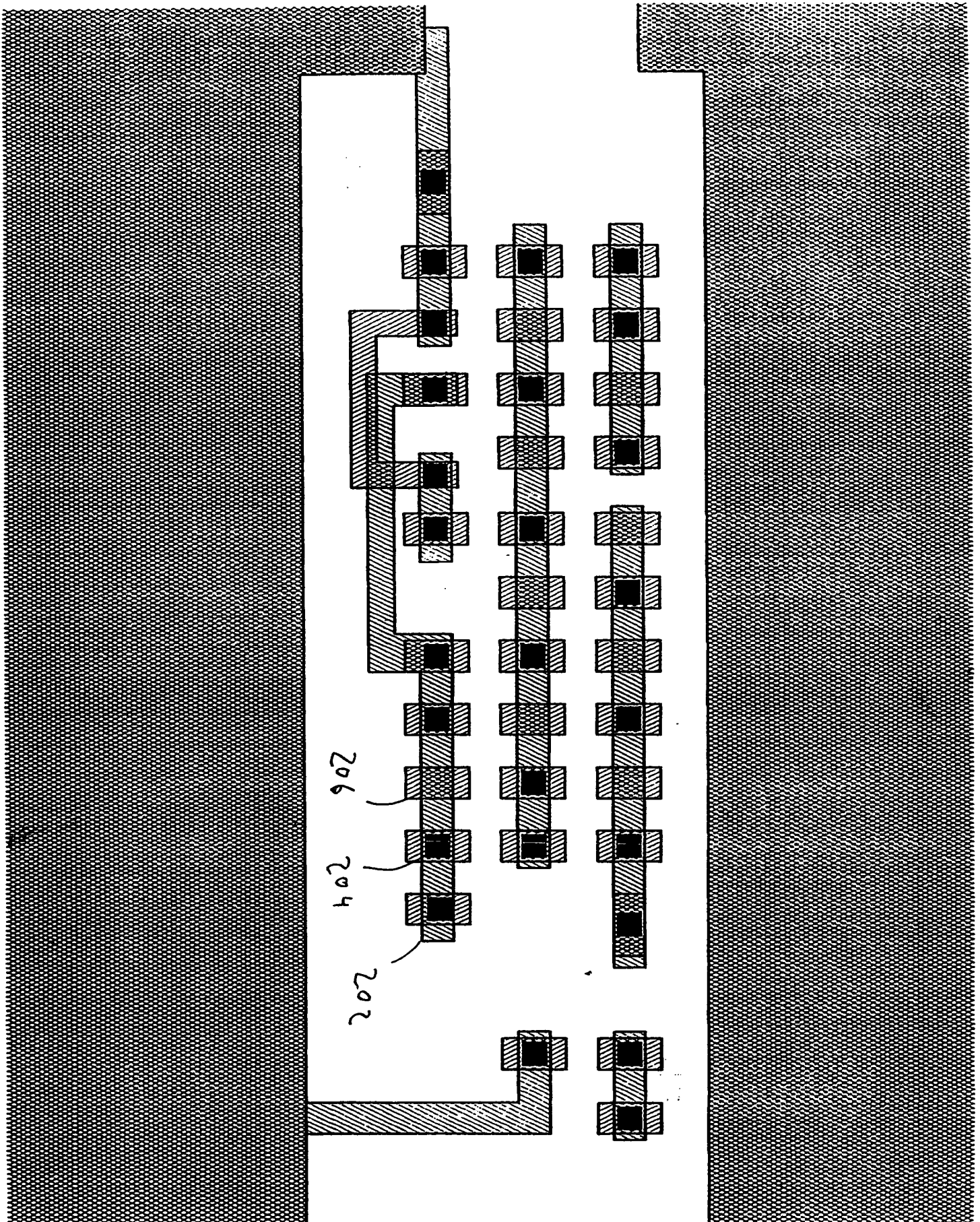


Fig 20

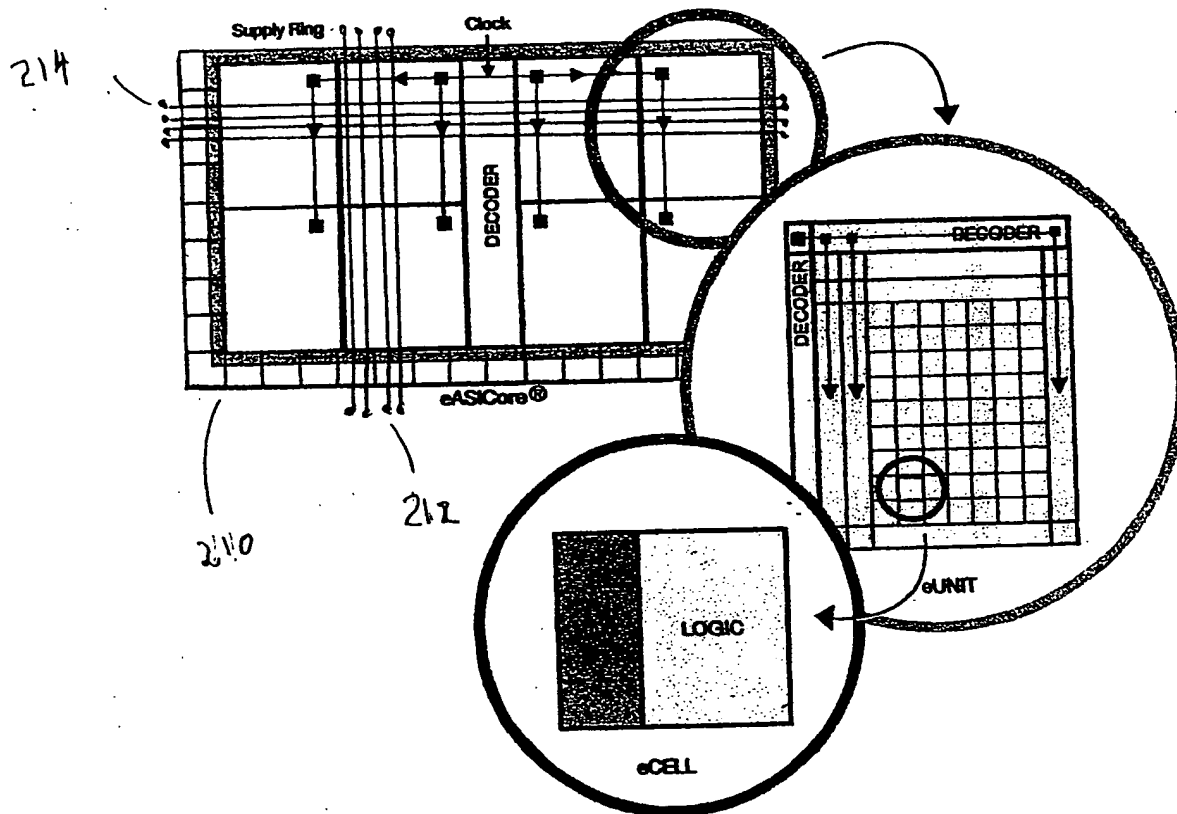


Fig 21

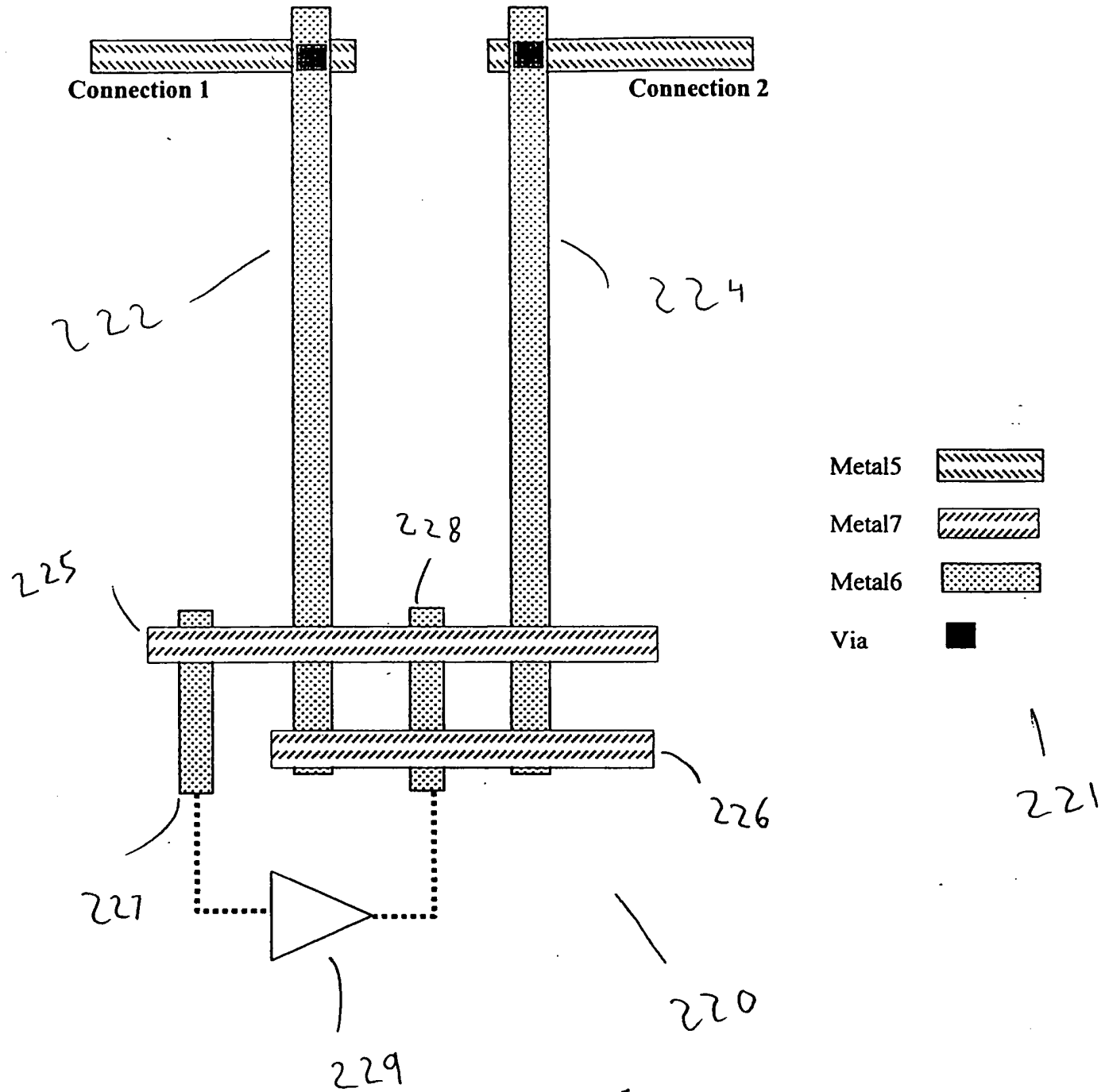


Fig 22

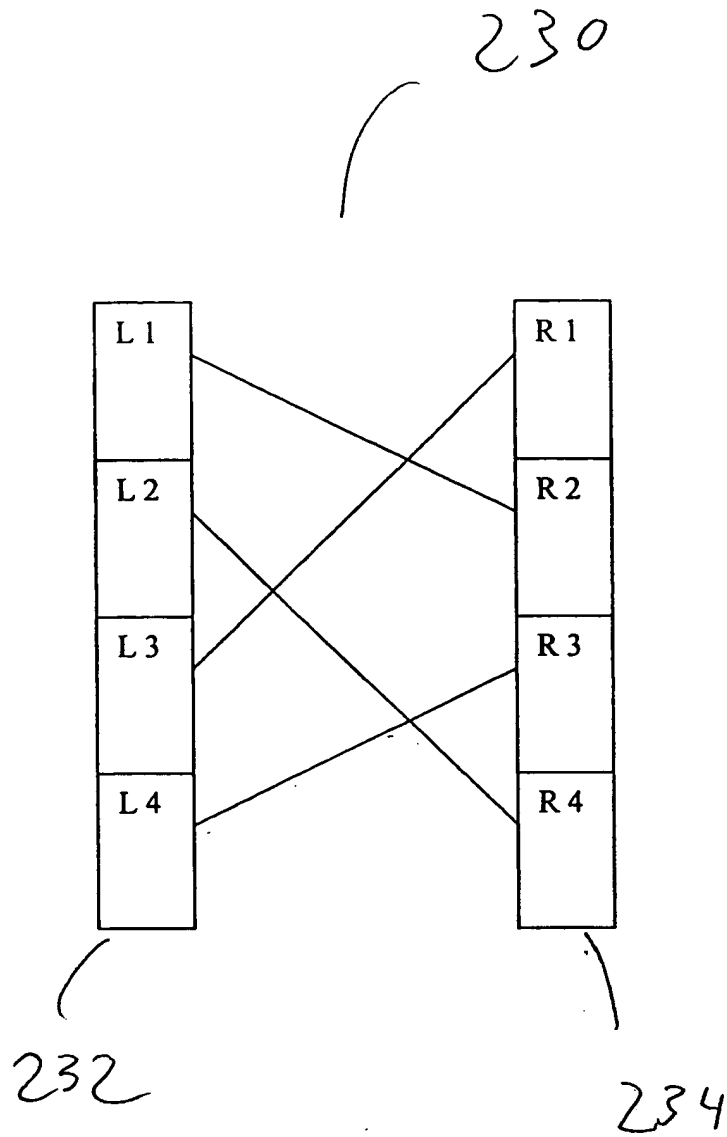


Fig. 23

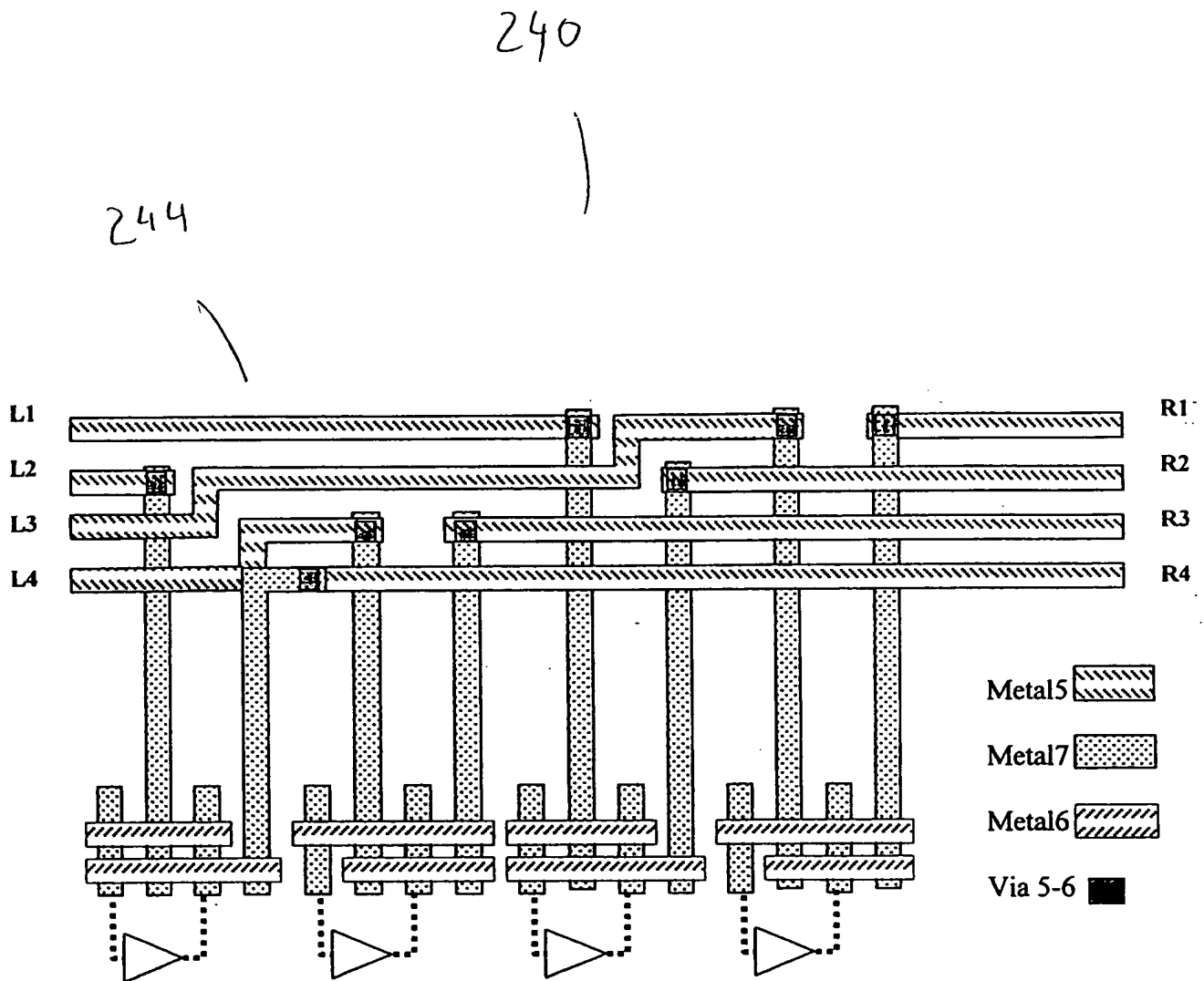
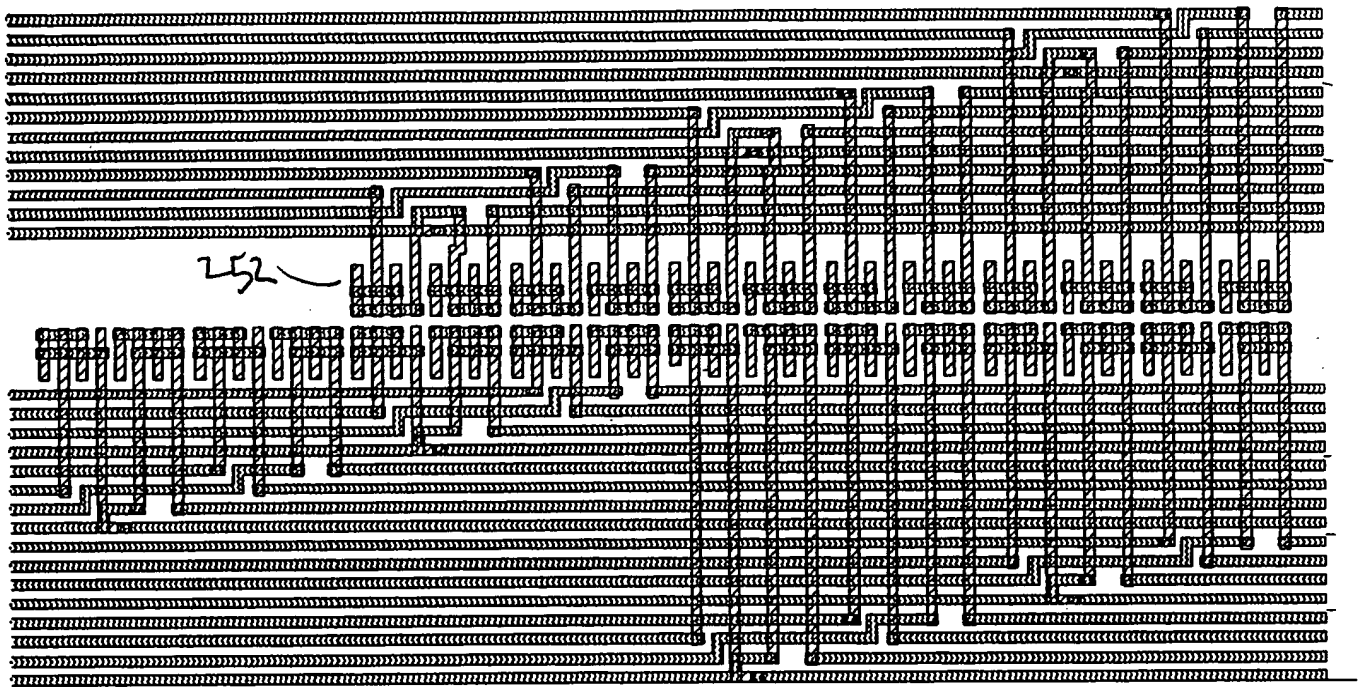


Fig 24

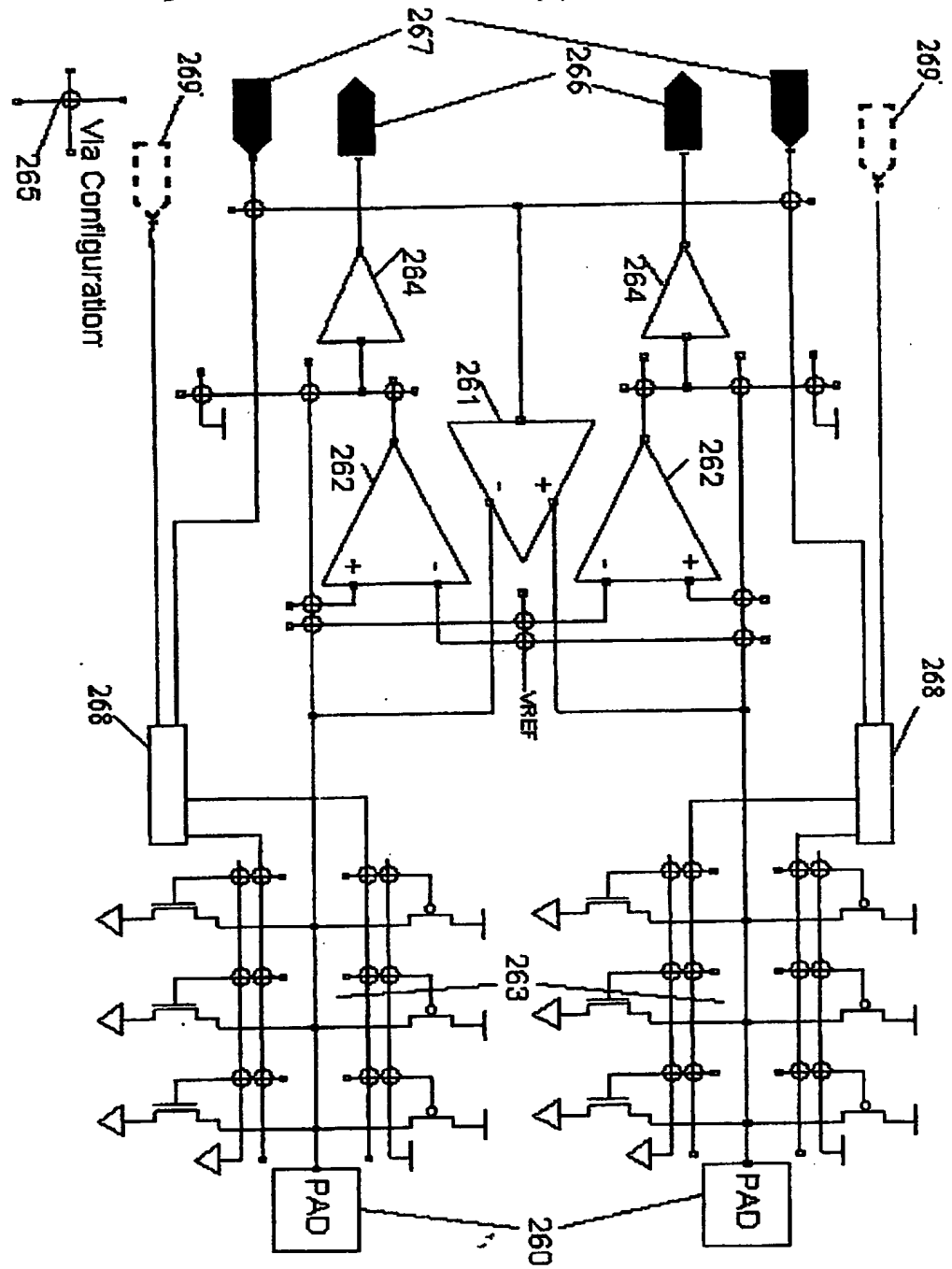
250



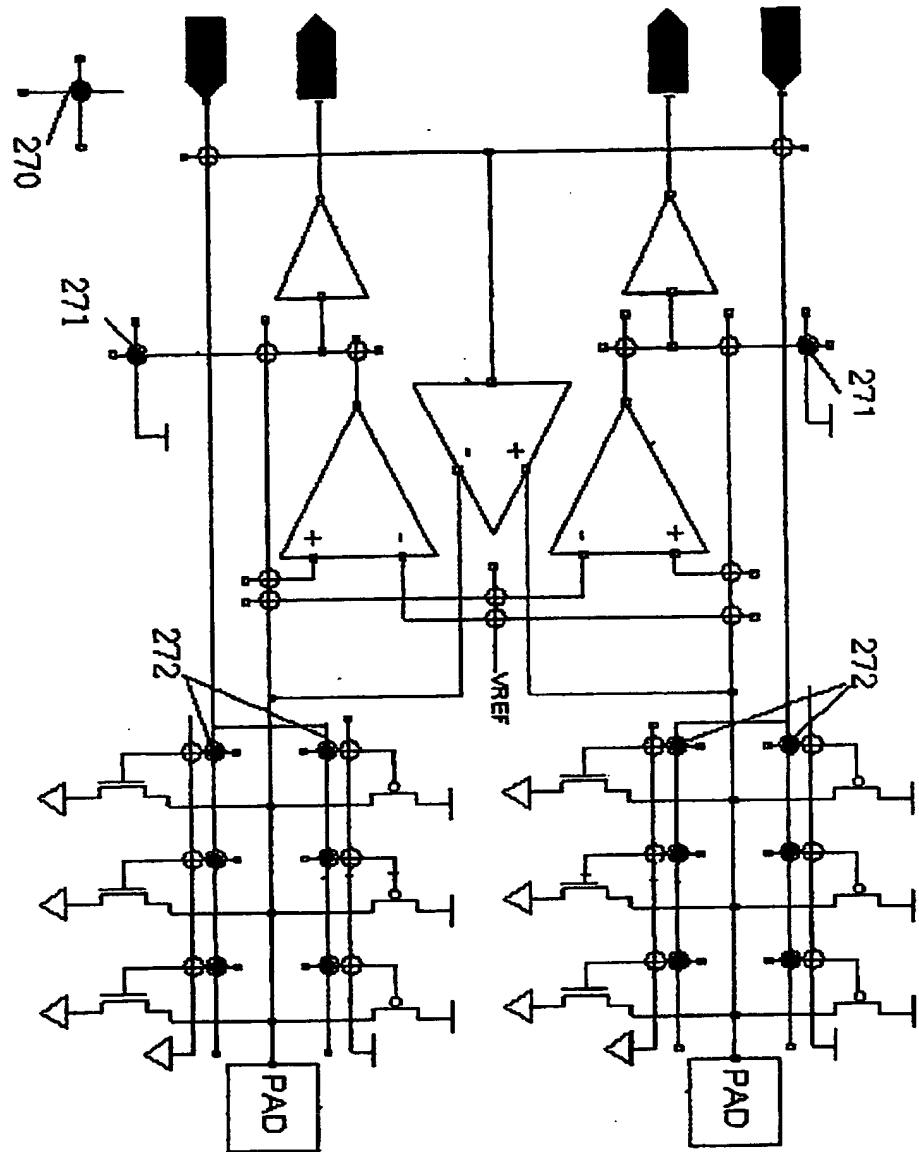
252

~~~~~ Metal 5  
||| Metal 6

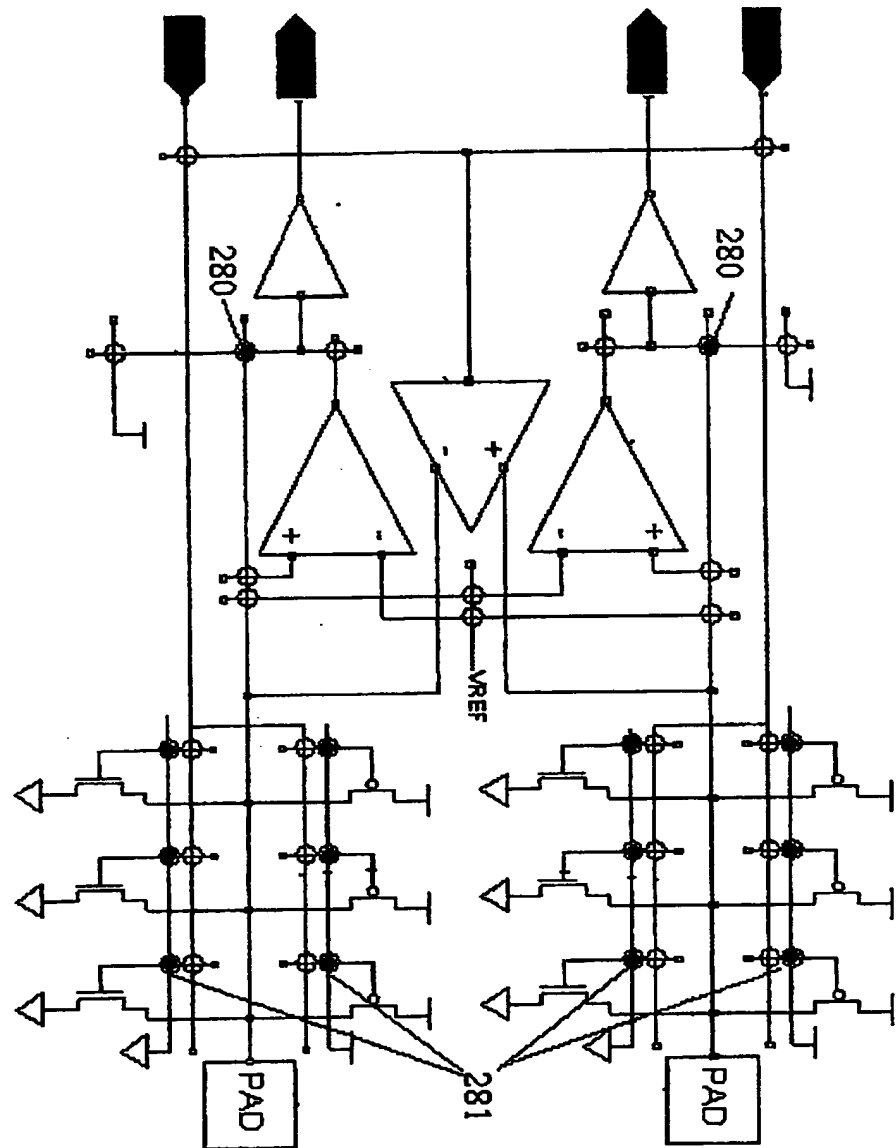
Fig 25



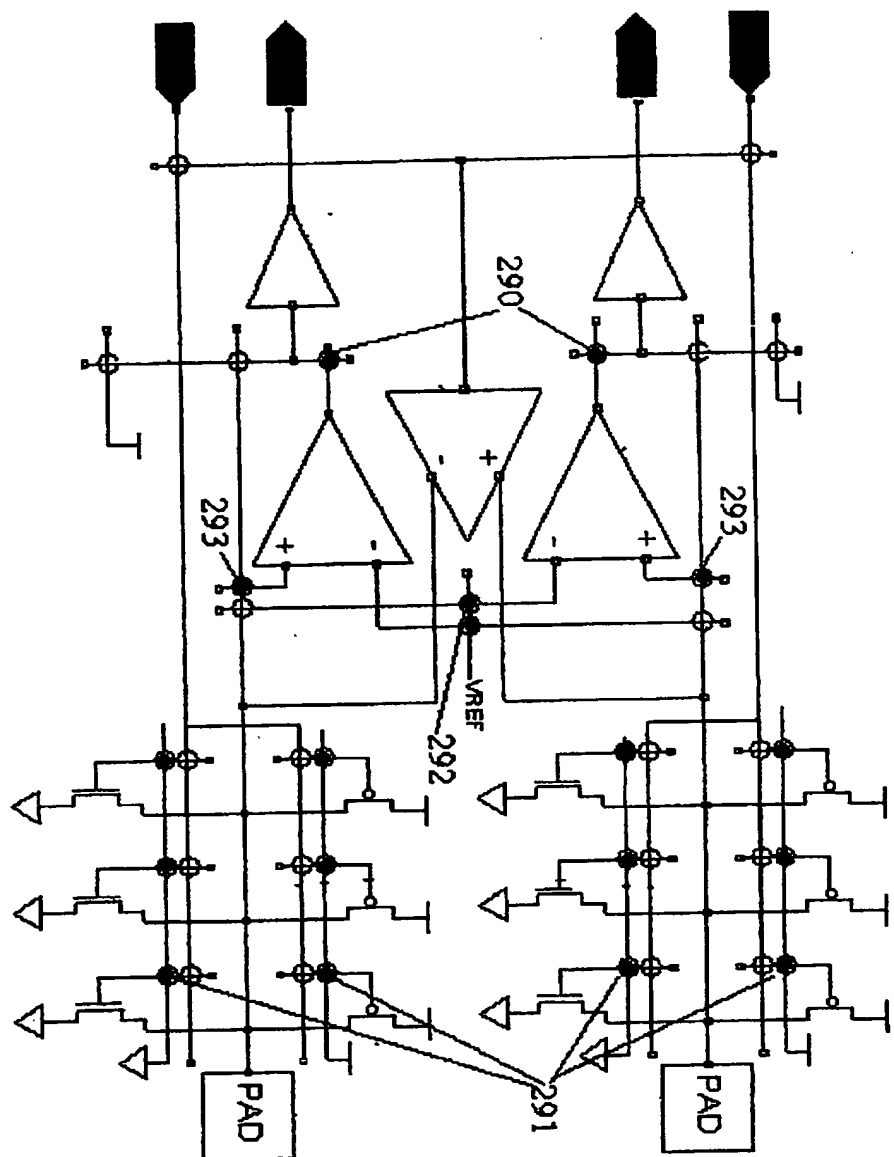
**Fig. 26**



**Fig. 27**

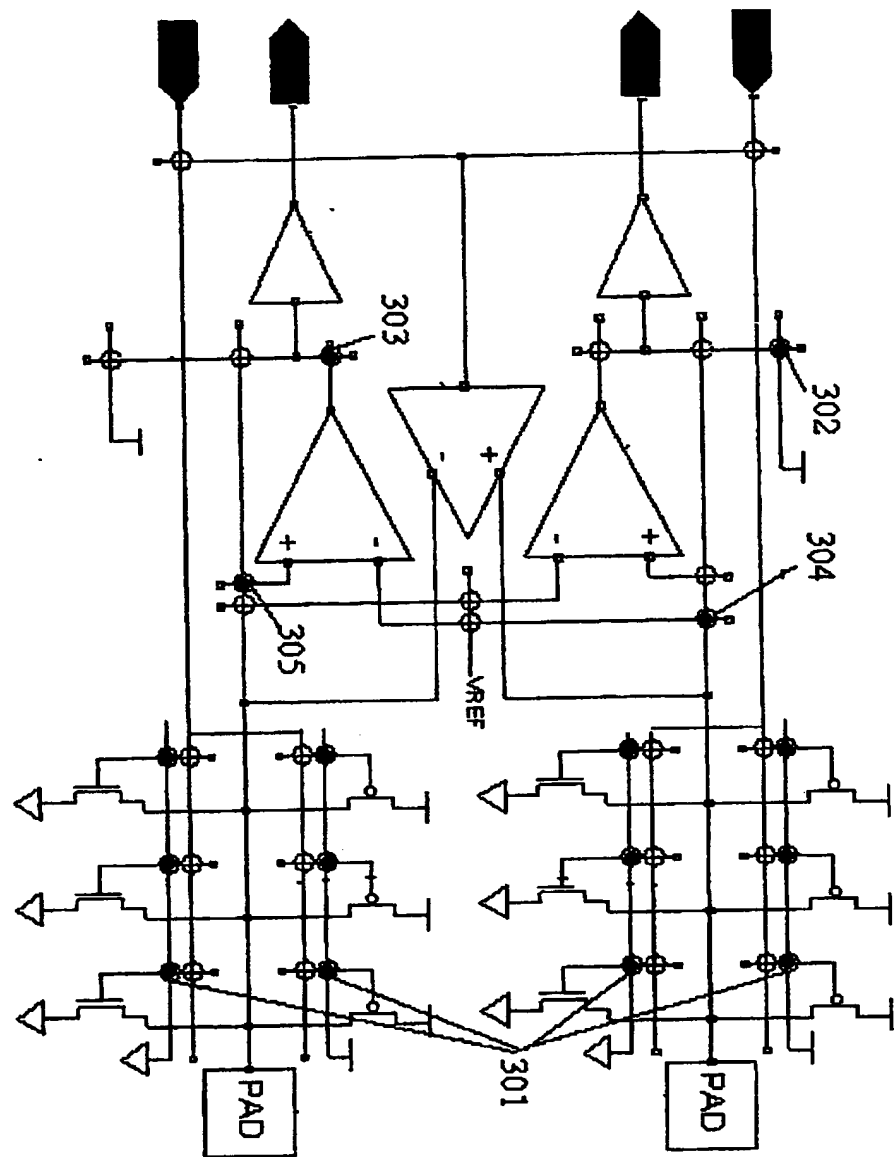


**Fig. 28**

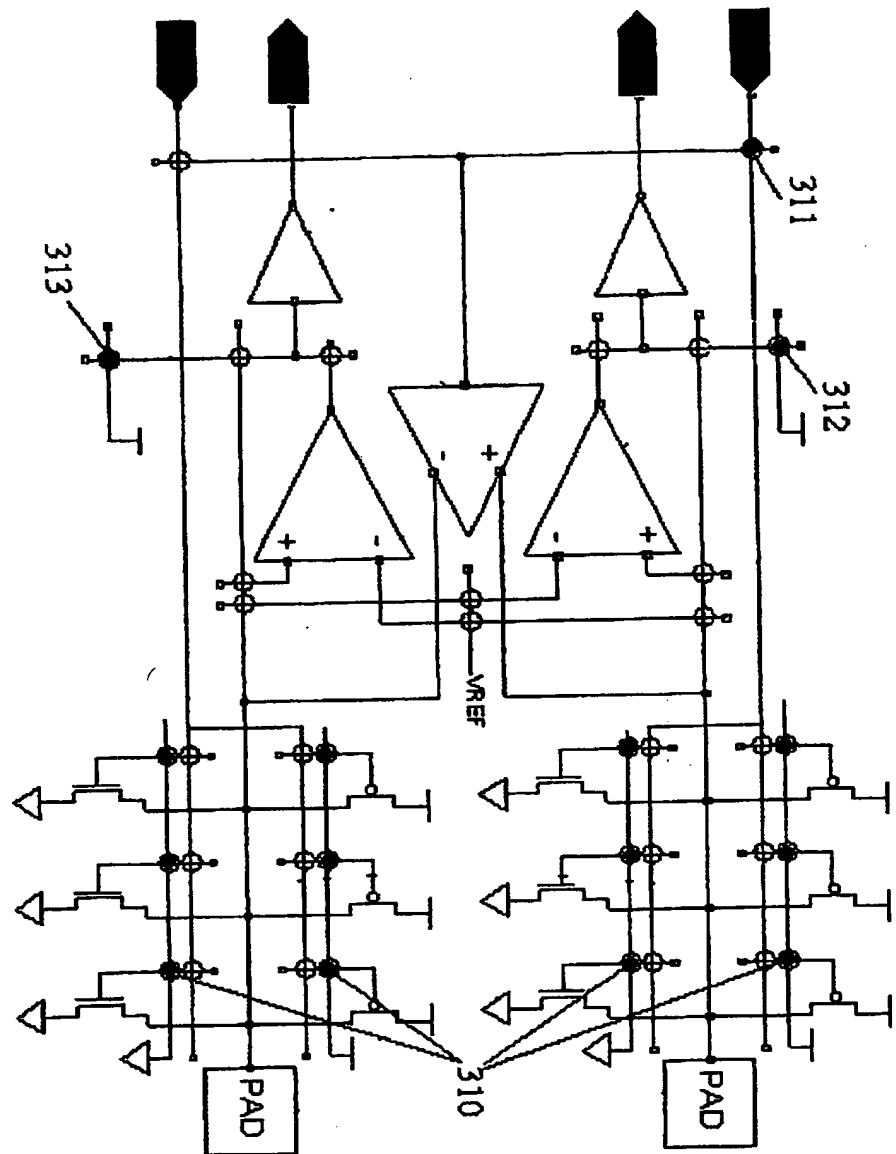


**Fig. 29**





**Fig. 30**



**Fig. 31**

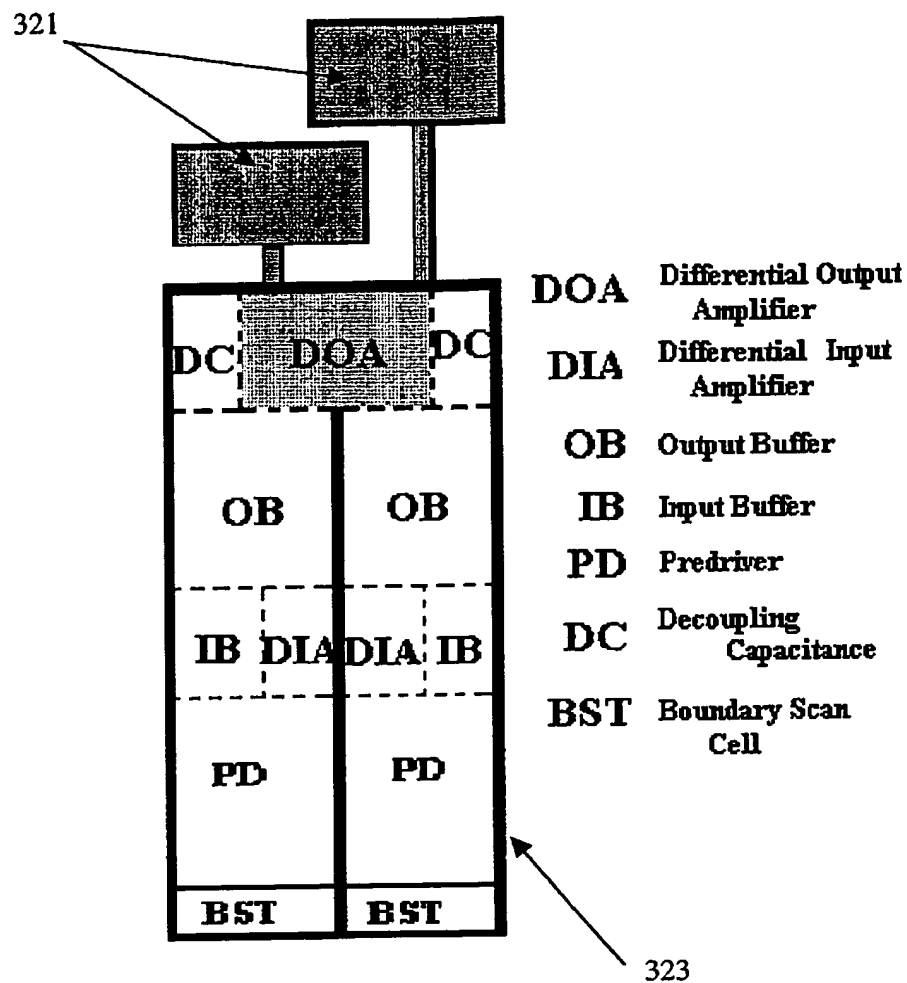


Fig 32

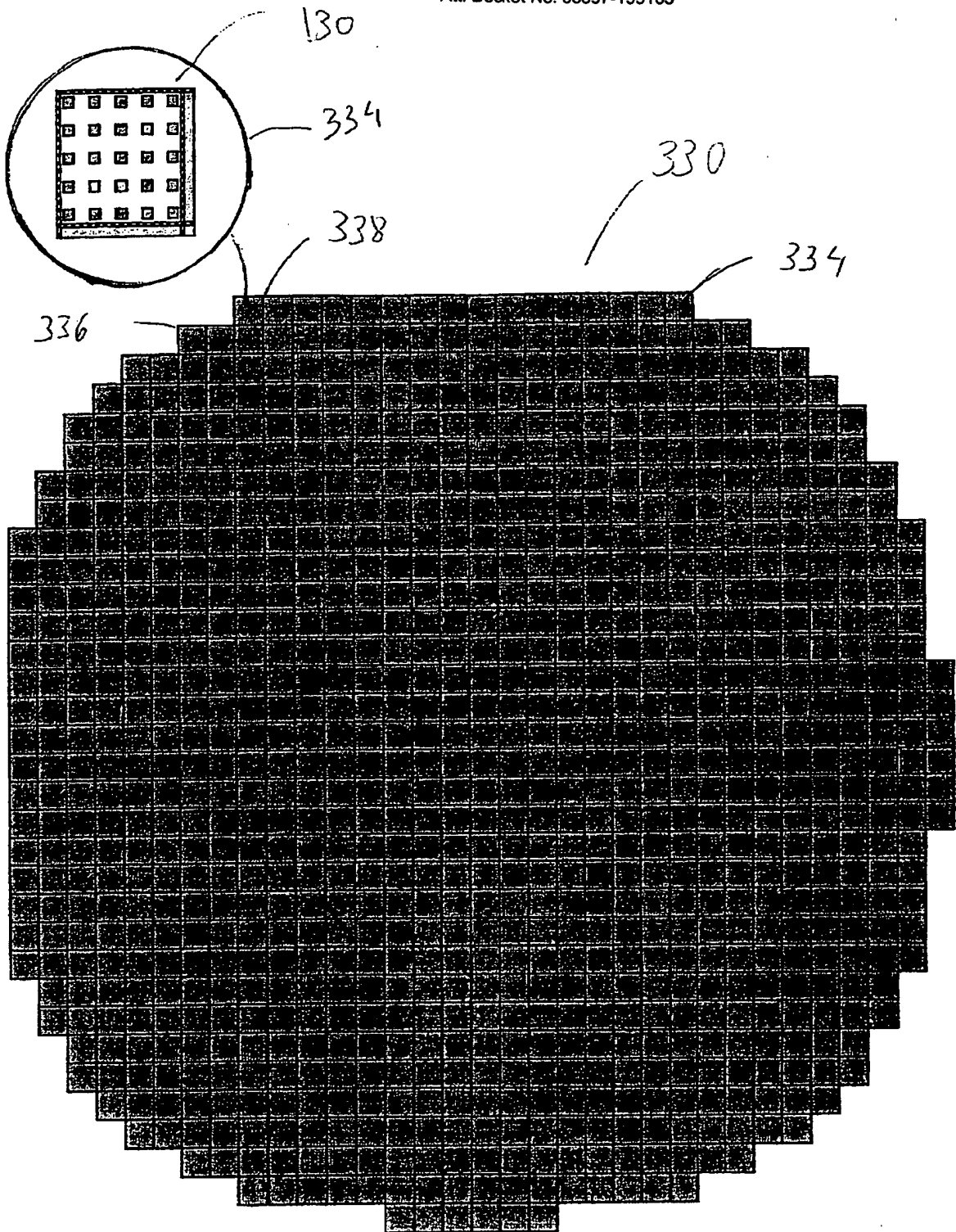


Fig 33

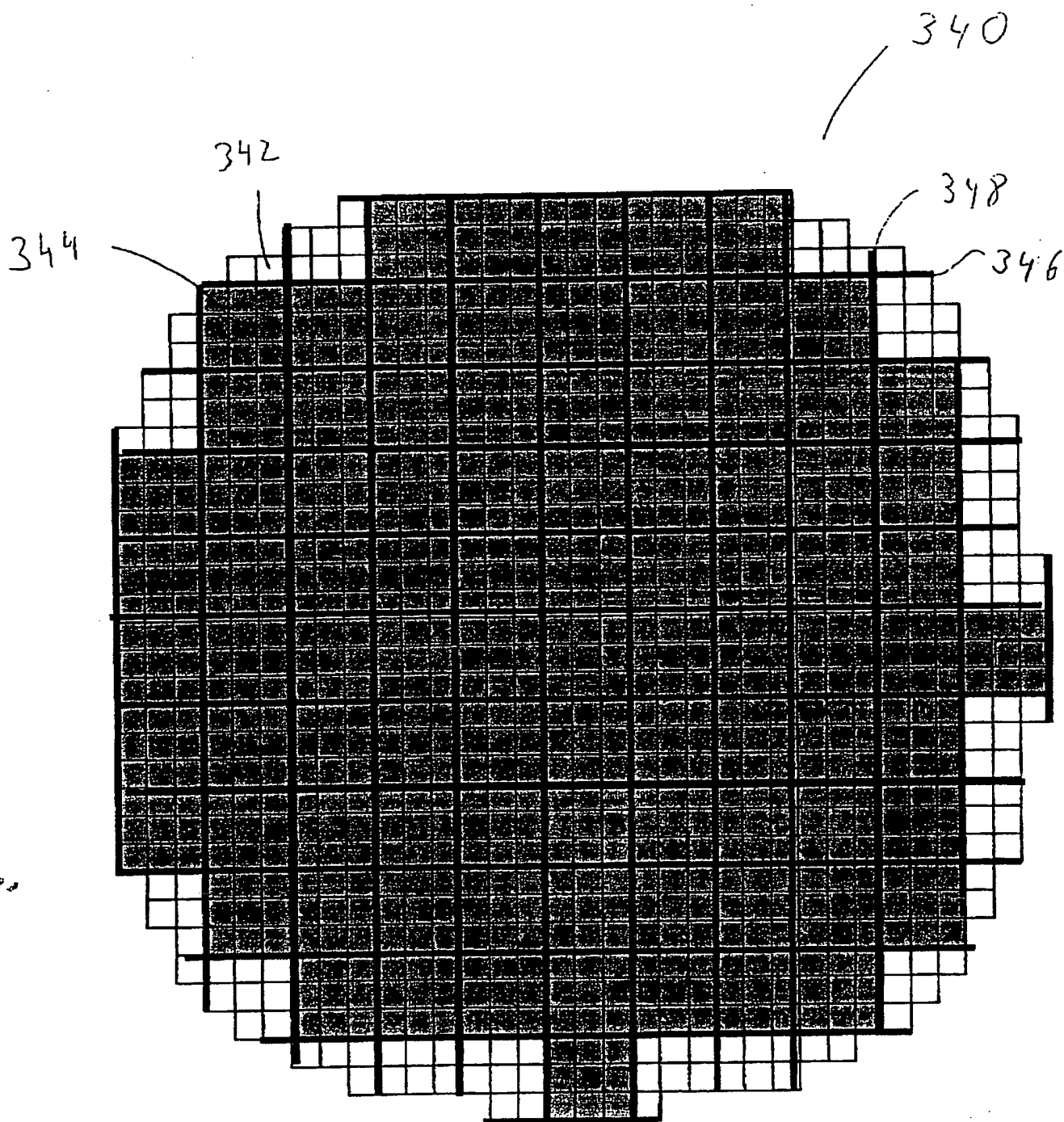


Fig 34

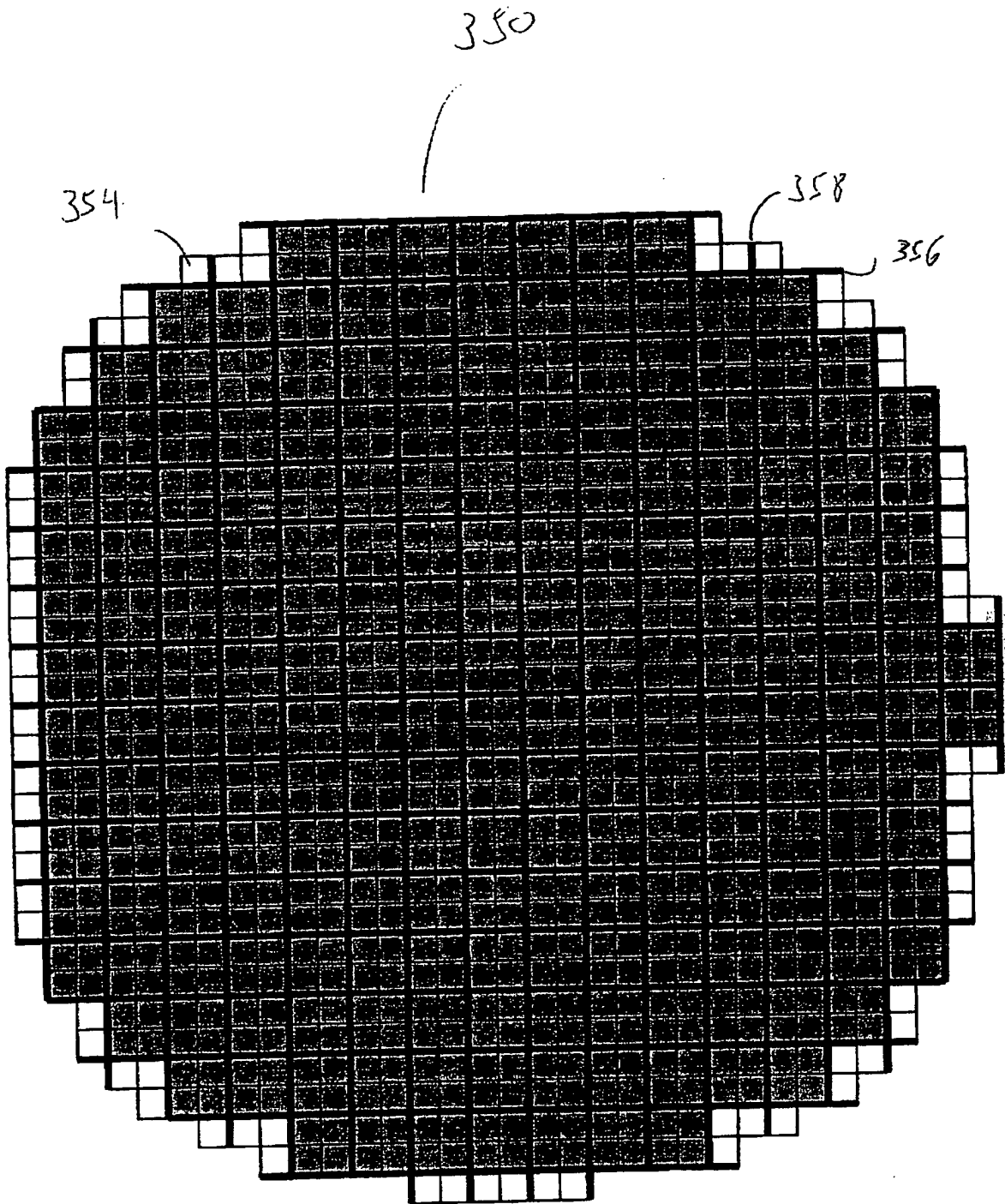
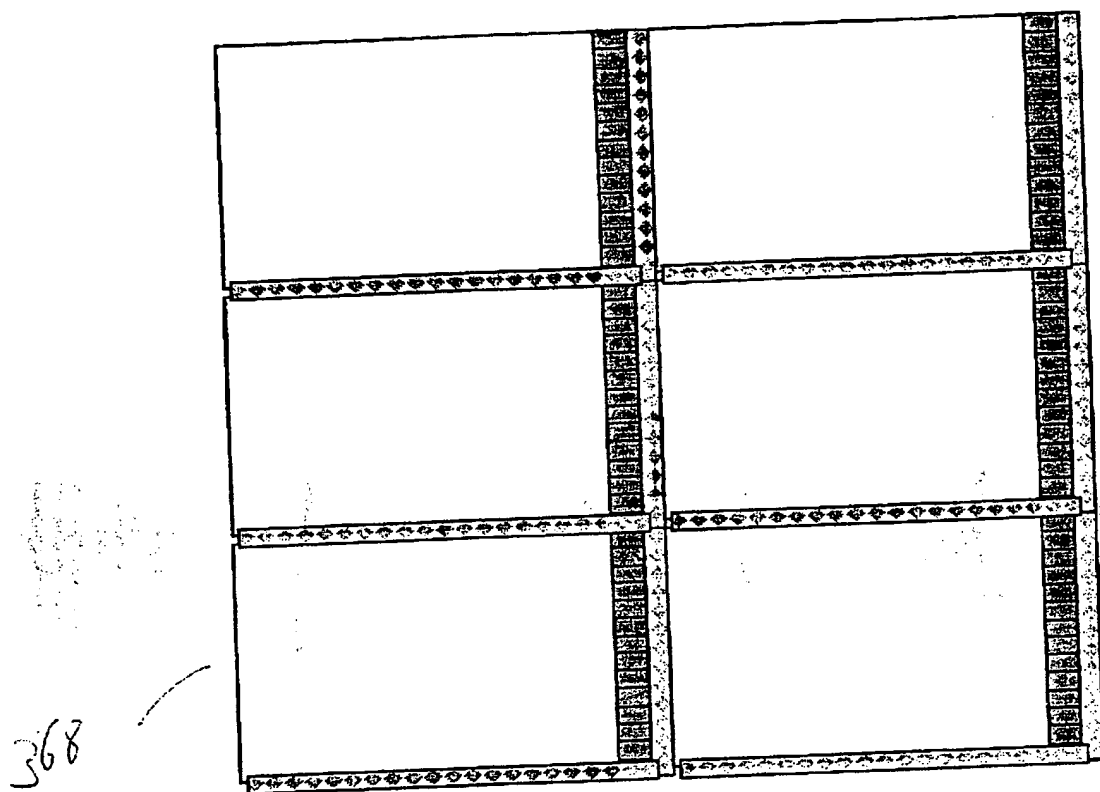
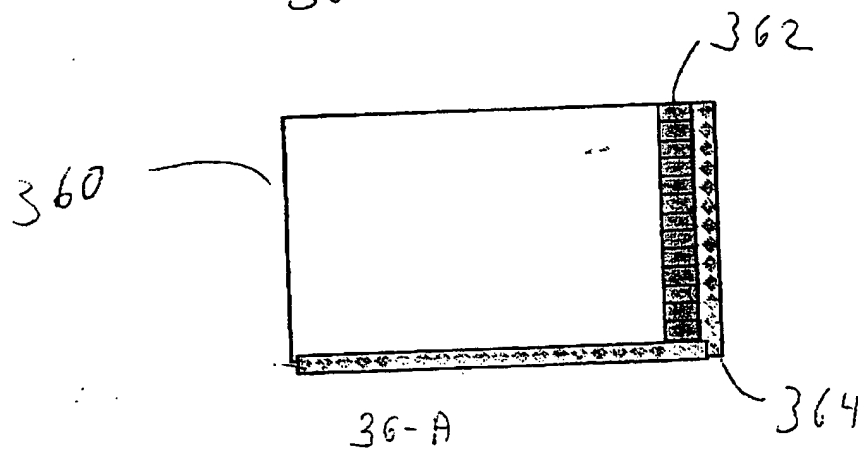


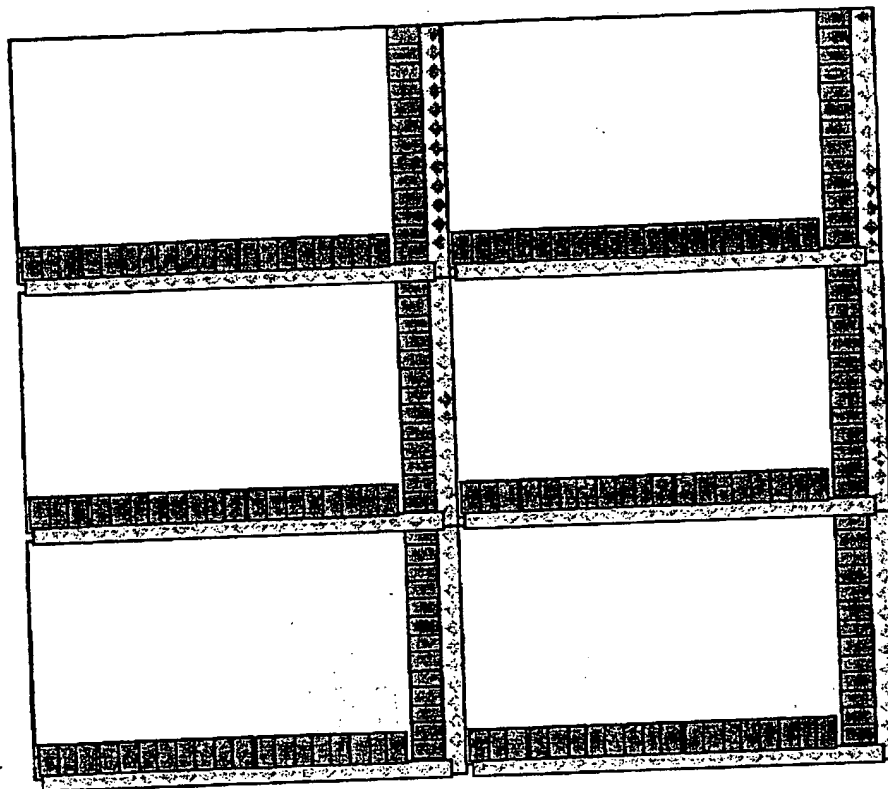
Fig 35



36-B



Fin 36

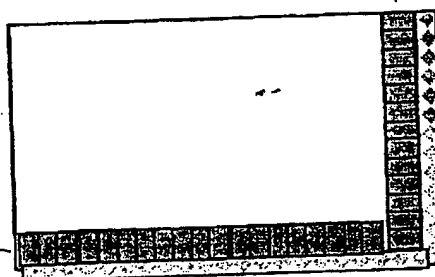


378

37-B

370

373



37-A

372

374

FIG 37



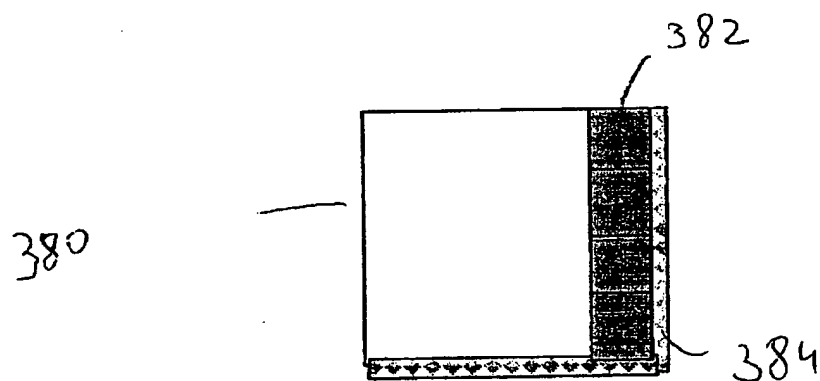
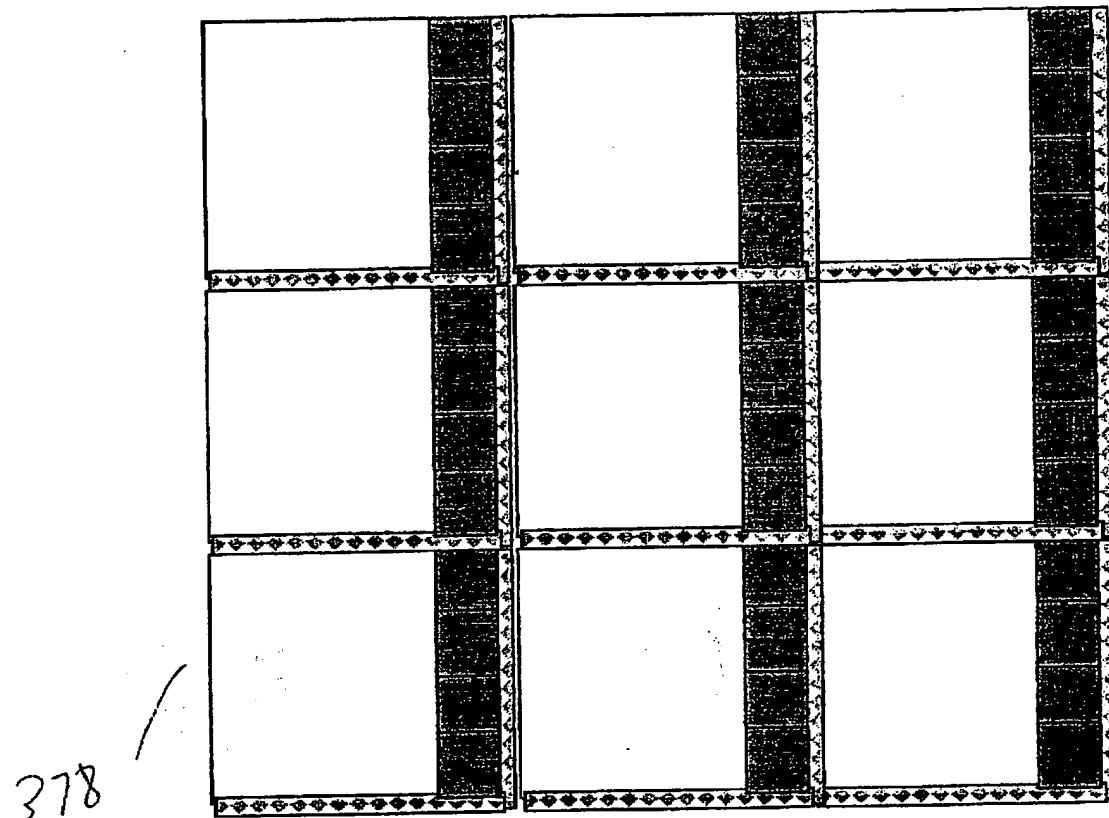
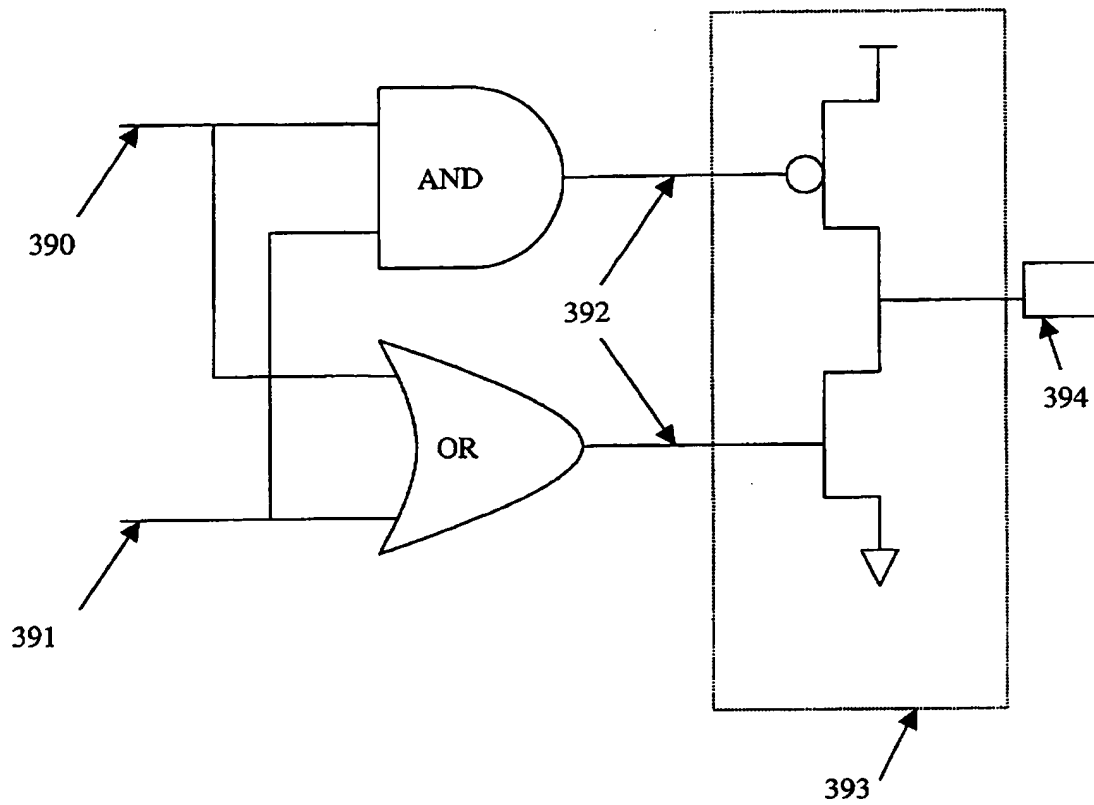


Fig 38



**Figure 39**